

# **Exhibit 38**

**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY**

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IN RE: AETNA UCR LITIGATION )      MDL NO. 2020  
                                  ) (No. 2:07-CV-3541)

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**RESPONSIVE EXPERT REPORT OF DR. ANDREW S. JOSKOW**

## Table of Contents

I.	Assignment .....	4
II.	Dr. Foreman's "Billed Charge" Methodology for Calculating Damages.....	5
III.	Dr. Foreman's "Accurate Allowed" Methodology for Calculating Damages .....	8
IV.	Errors in Dr. Foreman's Damages Calculations Using the "Accurate Allowed" Methodology Render his Damages Numbers Unreliable .....	13
A.	Dr. Foreman does not apply the "accurate allowed" methodology as described in his report.....	14
1)	Dr. Foreman's description of his "accurate allowed" methodology .....	14
2)	Dr. Foreman's actual application of the "accurate allowed" methodology .....	16
B.	Correction: Applying the "accurate allowed" methodology as described in Dr. Foreman's report.....	18
C.	Dr. Foreman errs in his calculation of the medical and dental adjustment factors .....	20
1)	Dr. Foreman used the wrong contributor dataset to calculate his 2007 contributor data percentile values.....	20
2)	Dr. Foreman misunderstands dental module release dates .....	21
D.	Correction: Recalculating the adjustment factors for medical and dental procedures.....	23
1)	Recalculating the medical adjustment factor .....	23
2)	Recalculating the dental adjustment factor .....	23
3)	Applying the "accurate allowed" methodology as described in Dr. Foreman's report using the corrected adjustment factors .....	25
E.	Dr. Foreman does not apply the adjustment factors appropriately for some class member claim lines .....	27
F.	Correction: Applying the "accurate allowed" methodology as described in Dr. Foreman's report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental.....	28
G.	Dr. Foreman defines class member claim lines incorrectly .....	30
1)	Inappropriate class member claim lines.....	30
2)	Dr. Foreman's uninjured class member claim lines.....	31
H.	Correction: Applying the "accurate allowed" methodology as described in Dr. Foreman's report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental, excluding inappropriate class member claim lines .....	32

I.	Dr. Foreman does not account for the date of service correctly .....	34
J.	Correction: Applying the “accurate allowed” method as described in his report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental, excluding inappropriate class member claim lines and class member claim lines with a date of service prior to 2002 .....	35
K.	Summary: Recalculation of Dr. Foreman’s damages using the “accurate allowed” method for 2002-2008.....	37
L.	Additional analyses relating to Dr. Foreman’s “accurate allowed” damages methodology .....	39
1)	Application of damages estimates to the entirety of the class period.....	39
2)	Breakout of damages estimates by assignment to subscribers vs. providers.....	43
3)	“Accurate allowed” methodology damages estimates using alternative adjustment factors.....	45
V.	Other Issues Regarding the Reliability of Dr. Foreman’s “Accurate Allowed” Damages Calculation .....	49
A.	Discrepancies between the results from the 300 CPT study and the results from the 350 CPT study raise questions as to the reliability of the 300 CPT study results and thus the appropriateness of using the 300 CPT Study as a basis for Dr. Foreman’s damages calculations .....	49
1)	Dr. Foreman’s contention that his results from the 350 CPT study support his results from the 300 CPT study is contradicted by the numbers in the tables of his own report .....	49
2)	Dr. Foreman’s 2007 contributor data percentile values from his 300 CPT study frequently differ from those in his 350 CPT study, contradicting his contention that the results from his 350 CPT study are consistent with those from his 300 CPT study.....	53
B.	The strict 255 data point cutoff used by Dr. Foreman to decide whether there are enough data points to calculate the percentile values has no scientific basis .....	55
VI.	Dr. Foreman’s Damages Calculation with Regard to “Representativeness” .....	57
VII.	Dr. Foreman’s Damages Calculation with Regard to the Association Plaintiffs.....	61
VIII.	Dr. Siskin’s Merits Report .....	68

## I. Assignment

1. I am an economist and Senior Vice President of National Economic Research Associates, Inc. (“NERA”). I opined about the class certification issues in this matter in expert reports dated April 06, 2010<sup>1</sup> and April 30, 2010.<sup>2</sup> I incorporate herein the opinions and analyses contained in these two prior reports submitted at the class certification stage. My qualifications are stated in these prior reports and are not repeated here. My updated CV is attached as **Appendix A**. Additional documents considered in connection with this report, beyond those considered in my two prior reports, are listed in **Appendix B**. I have been asked by counsel to analyze and address the damages report of Dr. Stephen Foreman.<sup>3</sup> For purposes of this report, in order to respond to Dr. Foreman’s calculations of class-wide damages, I assume that the class has been certified and Aetna has been found liable, i.e., Aetna improperly adjudicated out-of-network claims using the Ingenix database during the relevant time period of this litigation. I have also been asked to address Dr. Siskin’s report.<sup>4</sup> Dr. Siskin’s report is largely similar to the affirmative report he submitted in the class certification phase of this litigation.<sup>5</sup> Although I have responded to Dr. Siskin’s analyses in my class certification reports,<sup>6</sup> I provide a brief summary in this report. I do not address Dr.

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<sup>1</sup> Expert Report of Dr. Andrew S. Joskow, April 6, 2010 (“Joskow Affirmative Class Cert Report”).

<sup>2</sup> Responsive Expert Report of Dr. Andrew S. Joskow, April 30, 2010 (“Joskow Responsive Class Cert Report”).

<sup>3</sup> Expert Report of Stephen Foreman, Ph.D., JD, MPA, August 9, 2010 (Corrected) (“Foreman Merits Report”).

<sup>4</sup> Expert Report Dated August 9, 2010, Bernard R. Siskin, Ph.D., August 9, 2010 (“Siskin Merits Report”).

<sup>5</sup> Plaintiffs’ Expert Report Dated April 6, 2010, Bernard R. Siskin, Ph.D., *In Re: Aetna UCR Litigation*, MDL No. 2020 (No. 07-CV-3541) (FSH) (PS), April 6, 2010 (“Siskin Affirmative Class Cert Report”).

<sup>6</sup> See Joskow Affirmative Class Cert Report and Joskow Responsive Class Cert Report.

Rausser's report directly.<sup>7</sup> However, neither his report nor the reports of Dr. Foreman and Dr. Siskin lead me to change my opinion regarding class certification.

2. My analysis in this report proceeds as follows: In Part II, I evaluate Dr. Foreman's proposed "billed charge" damages methodology. In Part III, I evaluate Dr. Foreman's proposed "accurate allowed" damages methodology. In Part IV, I discuss errors in Dr. Foreman's implementation of his own "accurate allowed" methodology that result in a large overstatement of the proposed damages, even taking his "accurate allowed" methodology as given. In Part V, I discuss other issues with regard to the reliability of Dr. Foreman's "accurate allowed" damages calculation. In Part VI, I assess the scientific basis for Dr. Foreman's estimate of damages related to the "representativeness" of the contributor data. In Part VII, I assess the scientific basis for Dr. Foreman's estimate of damages to the Association Plaintiffs. In part VIII, I provide a summary response to Dr. Siskin's report. My evaluation of Dr. Foreman's damages analyses applies regardless of whether his results are used for the alleged class as a whole or for individual class members.

## **II. Dr. Foreman's "Billed Charge" Methodology for Calculating Damages**

3. Dr. Foreman proposes two methods for calculating damages. The first method is called the "billed charge" method, by which he proposes that "the appropriate measure of damages would be the difference between the [billed charge] and what [Aetna] actually paid."<sup>8</sup> Dr. Foreman applies this method to all claim lines in the proposed class and calculates the total damages to be \$3.1 billion.<sup>9</sup> However, Dr. Foreman's application of this method to all

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<sup>7</sup> Expert Witness Report of Gordon Rausser, Ph.D., *In Re: Aetna UCR Litigation*, MDL No. 2020, Master File No. 2:07-CV-3541 (FSH) (PS), August 9, 2010.

<sup>8</sup> Foreman Merits Report, ¶397.

<sup>9</sup> Foreman Merits Report, ¶464. Dr. Foreman makes an error in summing up the medical and dental damages figures in his billed charge method in his corrected Table 42, as the sum is actually \$2.6 billion, not \$3.1 billion.

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claim lines contrasts greatly with statements in his class certification reports, where he suggested a much more limited application. In his affirmative class certification report, Dr. Foreman stated that “[f]or some medical care procedures in some geographic areas there are insufficient numbers of claims to use percentile tables to establish a proxy for UCR or R&C. For these claims the health insurer should pay the billed charges.”<sup>10</sup> In his responsive class certification report, Dr. Foreman stated that the billed charge method applies when “there will be no sound way to establish UCR so that billed charges would be the proper basis for payment,” and that these occasions occur when “billed percentiles by CPT by geozip cannot adequately describe UCR, or if there are not enough billed charge data to produce percentile values with any reasonable degree of statistical confidence.”<sup>11</sup> Dr. Foreman has not provided any justification in his merits report for using a damages model that reimburses all purported class member claim lines based on the billed charge.

4. The implication of Dr. Foreman’s “billed charge” method is that, but-for the alleged conduct, Aetna should have allowed the billed charge on every class member claim line. But such an assumption is clearly absurd on its face. Members’ plan specifications instruct Aetna to reimburse out-of-network services based on the UCR rate, not the billed charge.<sup>12</sup> Moreover, it is not possible for every provider’s billed charge to be usual, customary, and reasonable. In other words, every provider’s billed charge could not be representative of rates for a certain procedure within a defined geography. For any meaningful definition of

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<sup>10</sup> Expert Report of Stephen Foreman, Ph.D., JD, MPA, April 6, 2010 (“Foreman Affirmative Class Cert Report”), ¶10.

<sup>11</sup> Expert Report of Stephen Foreman, Ph.D., JD, MPA, April 30, 2010 (“Foreman Responsive Class Cert Report”), ¶94.

<sup>12</sup> AET-00296986.

a usual, customary, and reasonable rate, actual billed charges will vary around that rate because different providers charge different amounts for the same service.

5. Dr. Foreman has not performed any empirical analysis to establish that the “but-for” UCR rate would be the billed charge for every claim line in the purported class. On the contrary, as shown in many illustrative examples in my affirmative class certification report, the “but-for” UCR rate based on “comparable” charges that is calculated controlling for plaintiffs’ alleged flaws can be lower than the billed charge.<sup>13</sup>
6. Dr. Foreman calculates damages in his “billed charge” method based on the assumption that the “but-for” UCR rate would equal the billed charge, even though some of the named plaintiffs have stated that they do not expect to be reimbursed based on the billed charge. For example, named subscriber plaintiff Michele Cooper testified that she expects to be reimbursed at the proper usual, customary, and reasonable rate, not the billed amount.<sup>14</sup> Another named provider plaintiff, Dr. Tonrey, testified that he is seeking damages based on the difference between a UCR rate that was satisfactory to him and the actual Ingenix-based UCR rate, not the difference between his billed charge and the actual Ingenix-based UCR rate.<sup>15</sup>
7. Dr. Foreman provides no economic basis upon which one could conclude that a provider’s billed charge, no matter how high, would be the proper “but-for” UCR rate. Furthermore, both named subscriber and provider plaintiffs have stated that they seek damages based on a proper UCR rate, not based on the billed charge. Thus, Dr. Foreman’s first proposed method for calculating damages is based on an assumption that is not supported by any

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<sup>13</sup> For example, Exhibits 7, 8, 9, 13, and 20 in Joskow Affirmative Class Cert Report.

<sup>14</sup> Deposition of Michele Cooper, January 19, 2010, pp. 39-40.

<sup>15</sup> Deposition of Dr. Frank G. Tonrey, February 22, 2010, pp. 144-146.

evidence or economic logic, and therefore it should not be considered as a proper methodology to calculate damages.

### **III. Dr. Foreman's "Accurate Allowed" Methodology for Calculating Damages**

8. The second method Dr. Foreman proposes for calculating damages is what he refers to as the "accurate allowed" method. For the "accurate allowed" method, Dr. Foreman calculates adjustment factors, separately for medical and dental procedures, which are based on the differences between the percentile values he calculates from the contributor data and those from the Ingenix PHCS data in his 300 CPT study.<sup>16</sup> He asserts that these adjustment factors arise from the bias resulting from Ingenix's processing of the data, such as the high-low screen, its treatment of modifiers, its use of derived charges, its reporting of percentile values with what Dr. Foreman considers too small a number of occurrences, and the lack of an inflation factor in the PHCS database.<sup>17</sup> Dr. Foreman arrives at adjustment factors of 11.25%<sup>18</sup> for medical procedures and 9.8%<sup>19</sup> for dental procedures.
9. Dr. Foreman states that to arrive at an "accurate allowed amount," the allowed amount should be increased by the appropriate adjustment factor. The "accurate allowed amount" corresponds to the "Accurate Allowed" column in Table 35 in Dr. Foreman's report. The "accurate allowed amount" is what he considers to be the "but-for" allowed amount absent Ingenix's processing of the contributor data for the PHCS database. He asserts that his preliminary damages figures are calculated by taking the lesser of (1) the difference between

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<sup>16</sup> According to Dr. Foreman, the 300 CPT study was the work of Mr. Frank Cohen and Mr. Buchanan. See Deposition of Stephen Foreman, November 1, 2010, pp. 92 and 116.

<sup>17</sup> Foreman Merits Report, ¶278.

<sup>18</sup> Implied through Foreman Merits Report Table 35.

<sup>19</sup> Foreman Merits Report ¶391 and Table 32.

the “accurate allowed amount” and the allowed amount; and (2) the difference between the billed charge and the allowed amount. Dr. Foreman then adjusts the preliminary damages estimate to account for patient responsibility<sup>20</sup> (deductible, co-insurance, and co-payment) to arrive at his final damages estimate. He calculates total damages to be \$1.39 billion using his “accurate allowed” method.<sup>21</sup>

10. Dr. Foreman’s “accurate allowed” method does not establish an appropriate benchmark for determining damages. In particular, with this methodology, Dr. Foreman does not take into account various alleged flaws that he himself states should have been considered in determining the UCR rate. For example, he asserts that it is a flaw that the Ingenix PHCS data do not control for provider training and qualifications.<sup>22</sup> However, Dr. Foreman fails to provide any evidence that not controlling for provider training and qualifications results in any damages, nor does he show how such damages would be calculated. As another example, he contends that it is not appropriate to use the geozip as the geographic market definition for UCR determination.<sup>23</sup> However, Dr. Foreman uses the geozip himself as the geographic market definition in his calculation of the adjustment factor that he uses in his damages calculations based on the “accurate allowed” method.<sup>24</sup>
11. Dr. Foreman’s “accurate allowed” method for calculating damages also does not take into account other characteristics that the Complaint states should have been considered in

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<sup>20</sup> He also refers to an adjustment for coordination of benefits (CoB). It is unclear what adjustment he is referring to. Claim lines with a CoB situation where Aetna is the secondary payer are not class member claim lines because the allowed amount was reduced for reasons other than UCR determination; for class member claim lines where Aetna is the primary payer in a CoB situation, he does not make any adjustments for the amount allowed by the secondary payer. See Foreman Merits Report, ¶¶397 and 443.

<sup>21</sup> Foreman Merits Report, Table 42 (Corrected).

<sup>22</sup> Foreman Merits Report, ¶449.

<sup>23</sup> Foreman Merits Report, ¶451.

<sup>24</sup> He uses the geozip as his geographic market definition in both the 300 CPT study and the 350 CPT study.

determining the UCR rate. For example, plaintiffs contend that one should consider the type of facility where the service was performed,<sup>25</sup> the type of service provided,<sup>26</sup> and various patient characteristics, such as the patient's age and health condition.<sup>27</sup> Another Plaintiffs' expert, Dr. Siskin, also contends that additional characteristics should be considered in determining the UCR rate.<sup>28</sup>

12. Dr. Foreman ignores all of these alleged flaws when he applies a single adjustment factor of 11.25% to all medical class member claim lines and another adjustment factor of 9.8% to all dental class member claim lines. Moreover, the application of a simple adjustment factor to all class member claim lines does not account for whether all class members were actually damaged. The 300 CPT study used by Dr. Foreman to compute these two adjustment factors is based on "but-for" UCR calculations at the procedure code-geozip level. He does not consider characteristics such as provider training and qualifications, an alternative geographic market definition, the type of facility, the type of service, or patient characteristics. Although Dr. Foreman contends that it is possible to account for such characteristics in the damages calculations, he has not presented such analyses in his report, nor has he explained how such analyses would be done.<sup>29</sup> Thus, his proposed "accurate allowed" method still suffers from many of the same alleged flaws that he and plaintiffs argue exist in the Ingenix PHCS database.

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<sup>25</sup> Joint Consolidated Amended Class Action Complaint and Demand for Jury Trial, *In Re: Aetna UCR Litigation*, MDL No. 2020 (No. 2:07-CV-3541), July 01, 2009, ("Class Action Complaint"), ¶165.

<sup>26</sup> Plaintiff Angela Hull's Responses and Objections to Aetna's Second Set of Interrogatories, *In Re: Aetna UCR Litigation*, MDL No. 2020 (No. 2:07-3541), January 13, 2010, p. 4.

<sup>27</sup> Class Action Complaint, ¶¶59 and 165.

<sup>28</sup> Siskin Affirmative Class Cert Report, pp. 5, 9-10.

<sup>29</sup> Foreman Merits Report ¶¶450, 455-456.

13. In fact, Dr. Foreman fails to apply the methodology that he described in his class certification reports. In his responsive class certification report, Dr. Foreman asserted that “[w]orkable adjustments for [geography, specialty, type of service, and place of service] can be developed scientifically and applied.”<sup>30</sup> He fails to do so in his merits report.
14. As the illustrative “but-for” analyses provided in my earlier reports demonstrate, “correcting” for these additional alleged flaws would require a more thorough empirical analysis. As I showed using Aetna’s ACAS data in my affirmative class certification report,<sup>31</sup> accounting for various characteristics in determining appropriate “comparable” charges and the appropriate “but-for” UCR rate for any given class member claim line is not likely to result in uniform impact on the subscribers and providers, which suggests that the use of a single adjustment factor is inappropriate.
15. In particular, various examples using Aetna’s ACAS data in my earlier reports showed that accounting for such characteristics might sometimes result in a “but-for” UCR rate that is lower than the actual UCR rate. One such example, shown in Exhibit 1,<sup>32</sup> relates to an Aetna POS plan member who went to see an out-of-network provider for an office visit (CPT 99213) in geozip 071 (Newark – Jersey City, New Jersey) on May 15, 2008. The provider charged this Aetna member \$150. The UCR rate for this claim line was determined to be \$132 based on the corresponding 80<sup>th</sup> percentile value from the Ingenix database, as specified by the member’s plan. One potential “but-for” UCR rate would have been \$100, which is calculated based on the distribution of the subgroup of claim lines that shares the same four characteristics with the class member claim line in question, i.e.,

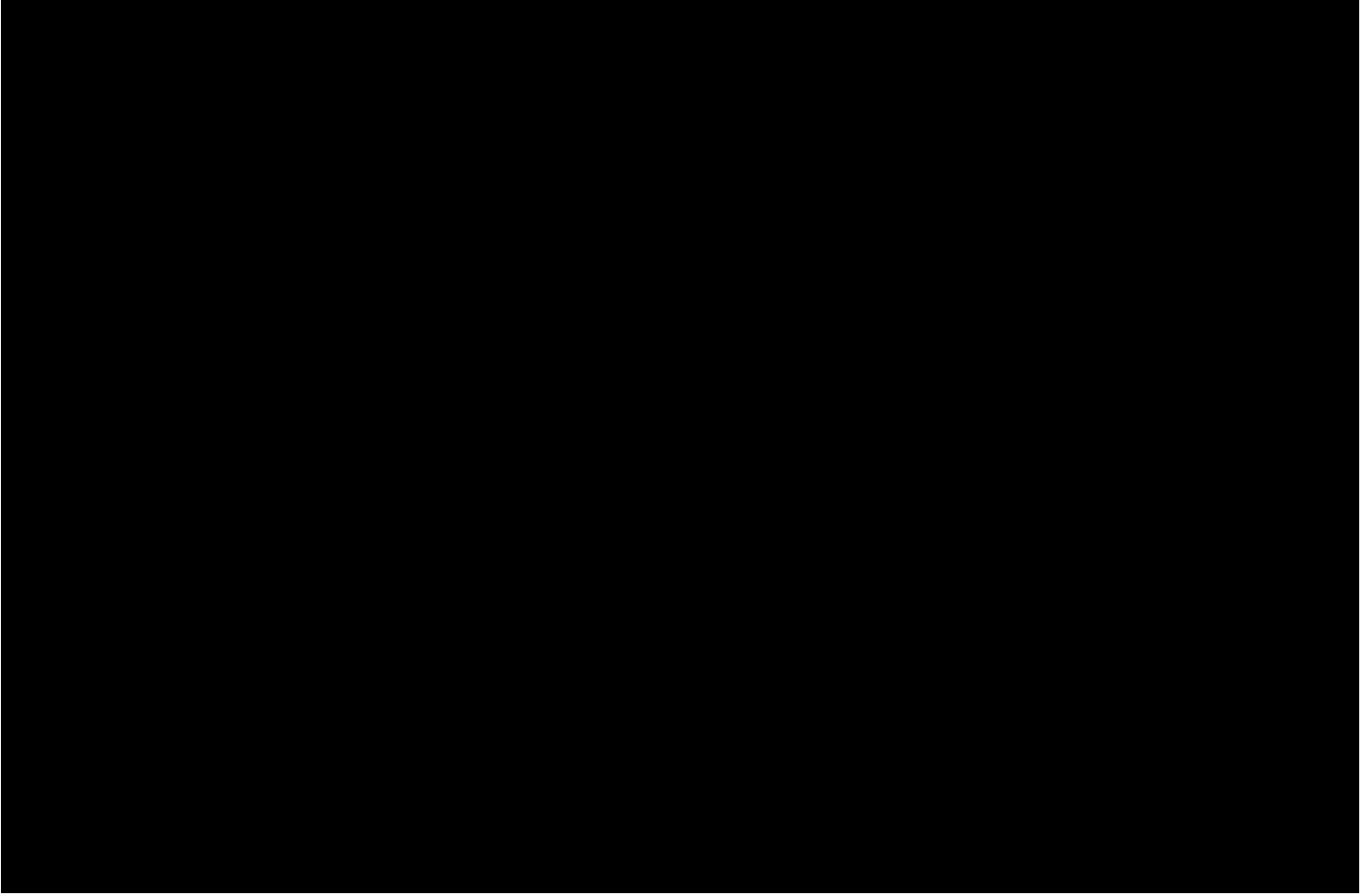
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<sup>30</sup> Foreman Responsive Class Cert Report, ¶95.

<sup>31</sup> Joskow Affirmative Class Cert Report, sections V.C and V.E.

<sup>32</sup> This is the same exhibit as Exhibit 5 in Joskow Affirmative Class Cert Report.

providers within five-digit zip code 07306, provider type of “physician” and specialty of “pediatrics,” type of service of “outpatient physician office visit medical PCP,” and place of service of “office.”<sup>33</sup> In this example, the purported class member might have benefited from Aetna’s use of the Ingenix PHCS database to determine the UCR rate.



16. Even for class member claim lines where the UCR rate would have been higher if not for Aetna’s use of the allegedly flawed Ingenix database to determine UCR, there is no clear uniformity in the level of the alleged underpayment. First, one needs to determine which of the four characteristics need to be accounted for and in what manner to define the

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<sup>33</sup> For ease of exposition I am simply referring to the “but-for” UCR rate that arises from accounting for all four characteristics, where the geography is defined by the zip code. Dr. Foreman has not addressed the issue of how to determine which characteristics need to be accounted for and in what fashion, nor does his method control for any of the four characteristics.

appropriate subgroup. Second, even after the relevant characteristics have been identified and the method to account for them has been defined, injury to all class members could not be uniform. Examples in my earlier reports have shown how the various alleged flaws could affect a hypothetical “but-for” UCR rate in different ways for the same class member claim line, and that the same alleged flaw can affect the “but-for” UCR rate for different class member claim lines in different ways.<sup>34</sup> Thus, determining whether there is any injury at all and calculating the damages for each proposed class member claim line based on plaintiffs’ allegations would be an individualized exercise that could not be done using the simple benchmark method proposed by Dr. Foreman.

#### **IV. Errors in Dr. Foreman’s Damages Calculations Using the “Accurate Allowed” Methodology Render his Damages Numbers Unreliable**

17. In my discussion in this section, I do not endorse Dr. Foreman’s “accurate allowed” damages methodology. Instead, solely for purposes of accounting for several errors in Dr. Foreman’s application of the methodology described in his report, I take Dr. Foreman’s general approach as given. I have assumed that the calculations set forth by Dr. Foreman are correct, with the exception of the errors described below. For example, I took the “but-for” contributor data percentile values generated in Dr. Foreman’s 300 CPT study as given for purposes of my analysis. As I describe below, the significant errors in Dr. Foreman’s damages calculations using the “accurate allowed” methodology render his results unreliable. I will address these points individually and follow up each of the points by showing how accounting for these errors results in substantially lower damages figures than those shown in his report. Note that Dr. Foreman has not completed his report turnover as of this date. For example, to date he has not produced the turnover required for me to be

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<sup>34</sup> Joskow Affirmative Class Cert Report, sections V.C and V.E.

able to replicate the calculation of his 300 CPT study contributor data percentile values. If more turnover is produced in this litigation I will continue to review his materials, and determine whether further analyses are necessary.

**A. Dr. Foreman does not apply the “accurate allowed” methodology as described in his report**

**1) Dr. Foreman’s description of his “accurate allowed” methodology**

18. As discussed in section III, Dr. Foreman calculates two adjustment factors,<sup>35</sup> separately for medical and dental procedures, using the “accurate allowed” method. These adjustment factors are based on the differences between the percentile values he calculated from the contributor data and those from the Ingenix PHCS data in his 300 CPT study.
19. To arrive at his adjustment factors, Dr. Foreman compares the percentile values that he calculates for select procedure code-geozip combinations<sup>36</sup> in the contributor data for 2006-2008 to the percentile values in the PHCS database for cycles 2005-2 through 2008-1. In particular, Dr. Foreman performs the following comparisons when data are available:<sup>37</sup>
  - a. 2006 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2005-2 and 2006-1, respectively;
  - b. 2007 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2006-2 and 2007-1, respectively; and

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<sup>35</sup> The adjustment factor is referred to as an “estimate of downward bias” in his report. See Foreman Merits Report, ¶388.

<sup>36</sup> Dr. Foreman notes that the procedure code-geozip combinations reflect combinations with 255 or more observations in the contributor data, where the procedure codes are selected from the top 300 procedure codes in the contributor data and the geozips are selected from the top 300 geozips. The procedure codes used to calculate the “medical” adjustment factor include both medical and surgical procedures. See Foreman Merits Report, ¶288.

<sup>37</sup> Dr. Foreman does not make any comparisons to the 2006 PHCS data (cycles 2006-1 and 2006-2) for dental procedures. He states that he did not have access to the 2006 PHCS dental modules. See Foreman Merits Report, ¶315 and Table 32.

- c. 2008 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2007-2 and 2008-1, respectively.

20. Dr. Foreman's reasoning behind the PHCS cycle selection is that the adjustment factor should be based on the comparison of each calendar year of contributor data to each of two cycles that Aetna's ACAS system uses for UCR determination on ONET claims that are adjudicated during that calendar year.

21. The percent differences for each cycle and percentile are weighted and averaged across percentiles and cycles to arrive at the adjustment factors of 11.25%<sup>38</sup> for medical procedures and 9.8% for dental procedures.

22. For the "accurate allowed" method, Dr. Foreman increases the allowed amount<sup>39</sup> by 11.25% for medical procedures<sup>40</sup> and 9.8% for dental procedures<sup>41</sup> to generate an "accurate allowed amount," which corresponds to the "Accurate Allowed" column in Table 35 for medical

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<sup>38</sup> There are two values—11.2% and 11.5%—listed in Dr. Foreman's report text ¶¶389 and 418, respectively, as the adjustment factor for medical procedures. The 11.2% figure appears to be calculated in Table 31 while Dr. Foreman acknowledged in his deposition that the 11.5% figure was a typo. However, Dr. Foreman's Table 35 shows that the actual adjustment factor he uses in his damages calculations, as calculated by dividing the "Accurate Allowed" column by the "Allowed" column, is 11.25% for medical procedures. To be consistent with the adjustment factor that Dr. Foreman actually applied in his damages calculations, I use the 11.25% figure in my calculations as well.

<sup>39</sup> The field that Dr. Foreman refers to as the allowed amount is in fact the actual price field in Aetna's data which captures an amount similar to, but not the same as, the allowed amount. When I refer to the allowed amount in this section, I mean the actual price field. See Foreman Merits Report, footnote 118.

<sup>40</sup> Dr. Foreman describes these as both damages relating to medical procedures and damages relating to medical-surgical procedures. I will refer to them as medical damages to distinguish them from the dental damages. For the purpose of his damages calculations he is actually referring to all of the procedures included in the Aetna ACAS medical data (as opposed to the Aetna ACAS dental data) as medical procedures. However, the Aetna ACAS medical data include procedures covered under medical benefits; this can include medical, surgical, anesthesia, HCPCS, dental, and category III procedures. Dr. Foreman applies his medical adjustment factor, which is based on medical and surgical procedures, to all class member claim lines in these data, including, for example, HCPCS class member claim lines.

<sup>41</sup> For the purpose of his damages calculations, Dr. Foreman is actually referring to all procedures included in the Aetna ACAS dental data as dental procedures. However, the Aetna ACAS dental data include all procedures covered under dental benefits; this includes mostly dental procedures but can include some non-dental procedures as well.

procedures.<sup>42</sup> Dr. Foreman asserts that this “accurate allowed amount” is the “but-for” allowed amount absent Ingenix’s processing of the contributor data to generate the PHCS database.

23. Dr. Foreman asserts that his preliminary damages figures are calculated by taking the lesser of (1) the difference between the “accurate allowed amount” and the allowed amount; and (2) the difference between the billed charge and the allowed amount. The sum of the preliminary damages estimates across all class member claim lines is reflected in the “Prelim Est” column in Tables 35 and 39 of his report.
24. Dr. Foreman then adjusts the preliminary damages estimate to account for patient responsibility to arrive at his final damages estimate. The final damages estimate is reflected in the “Final Est” column in Tables 35 and 39 in his report for medical and dental class member claim lines, respectively.<sup>43</sup>

**2) Dr. Foreman’s actual application of the “accurate allowed” methodology**

25. My review of Dr. Foreman’s report and the files produced in his turnover reveals that the methodology laid out in his report (as described above) is different from the methodology he applied to arrive at the damages figures in Tables 35 and 39.
26. Dr. Foreman first calculates the adjustment factors of 11.25% and 9.8% for medical and dental procedures, respectively. He then uses these adjustment factors to calculate an “accurate allowed amount” for each claim line. It is at this point that Dr. Foreman’s methodology deviates from what he describes in his report.

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<sup>42</sup> Dr. Foreman does not show the “Accurate Allowed” column in Table 39 which relates to dental procedures, but the method applied is the same. See Foreman Merits Report, Table 39 (Corrected).

<sup>43</sup> In corrected Table 42 of his report, Dr. Foreman adds additional damages for what he calls damages due to representativeness issues. I discuss flaws with that approach in section VI.

27. In reviewing Dr. Foreman's turnover, I have found that Dr. Foreman calculates preliminary damages using the "accurate allowed" method as follows:

- a. If the Ingenix PHCS database contains fewer than 255 observations for the procedure code-geozip combination associated with the class member claim line, Dr. Foreman calculates preliminary damages as the difference between the billed charge and the allowed amount. In many of these instances, the billed charge exceeds the "accurate allowed amount." In effect, he has embedded his "billed charge" method into his "accurate allowed" method.
- b. If the Ingenix PHCS database contains 255 or more observations for the procedure code-geozip combination associated with the class member claim line, Dr. Foreman applies the method he describes in his report. In this case, preliminary damages are calculated by taking the lesser of (1) the difference between the "accurate allowed amount" and the allowed amount; and (2) the difference between the billed charge and the allowed amount.

28. However, as Dr. Foreman states in his deposition testimony, nowhere in the merits report does he indicate that he embedded the "billed charge" method into the "accurate allowed" method.<sup>44</sup>

29. In section II, I discussed why a model that universally uses the billed charge as the "but-for" UCR rate would not be valid. Embedding that model into the "accurate allowed" model

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<sup>44</sup> Deposition of Stephen Foreman, November 1, 2010, pp. 289-291. Mr. Cohen performed the damages calculation for the "accurate allowed" method. When Dr. Foreman was asked whether he knew at the time that he signed his report that the "billed charge" method was embedded in his "accurate allowed" method for claim lines associated with CPT-geozip combinations with fewer than 255 occurrences, he testified that he "can't remember."

results in a substantial overstatement of damages, even if one were to accept Dr. Foreman's "accurate allowed" model at face value.<sup>45</sup>

**B. Correction: Applying the "accurate allowed" methodology as described in Dr. Foreman's report**

30. I recalculate Dr. Foreman's damages figures by applying the "accurate allowed" method as described in Dr. Foreman's report without the embedded "billed charge" method, taking all other figures in Dr. Foreman's report as given. To do so, I calculate an "accurate allowed amount" by increasing the allowed amount for his class member claim lines by the respective adjustment factors that Dr. Foreman uses in his damages calculations: 11.25% for his medical class member claim lines and 9.8% for his dental class member claim lines. I then compare the "accurate allowed amount" to the billed charge for each class member claim line. If the "accurate allowed amount" exceeds the billed charge, preliminary damages are equal to the difference between the billed charge and the allowed amount. Otherwise, preliminary damages equal the difference between the "accurate allowed amount" and the allowed amount. I then account for patient responsibility, using Dr. Foreman's method, to arrive at the final damages estimates. In sum, I have recalculated damages using Dr. Foreman's turnover and the methodology that he describes in his report. As shown in Exhibit 2, damages for Dr. Foreman's medical class member claim lines in the 2002-2008 time period decrease from \$426,947,349 to \$161,480,609.

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<sup>45</sup> As a separate issue, I discuss why Dr. Foreman's choice of 255 observations in the Ingenix PCHS database as a cutoff is arbitrary. See section V.B.

**Exhibit 2**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>1</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 35 of Dr. Foreman's Report
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			(c)*1.1125				
2002	\$ 463,213,149	\$ 317,478,220	\$ 353,194,520	\$ 31,610,810	\$ 23,347,601	\$ 63,165,002	
2003	482,813,739	327,112,940	363,913,146	32,553,730	23,523,395	61,830,620	
2004	473,668,745	318,696,781	354,550,168	31,905,134	22,226,359	59,595,027	
2005	478,322,265	318,053,057	353,834,026	31,873,961	21,515,094	54,945,402	
2006	528,881,444	347,621,152	386,728,531	34,980,821	23,061,818	58,332,611	
2007	552,712,954	355,592,072	395,596,180	36,041,131	23,351,015	61,186,539	
2008	596,960,161	369,459,665	411,023,877	37,922,808	24,455,328	67,892,148	
<b>Total:</b>	<b>\$ 3,576,572,456</b>	<b>\$ 2,354,013,887</b>	<b>\$ 2,618,840,449</b>	<b>\$ 236,888,395</b>	<b>\$ 161,480,609</b>	<b>\$ 426,947,349</b>	

<sup>1</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.  
 Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*.

31. As shown in Exhibit 3, applying the same correction to Dr. Foreman's dental class member claim lines results in a reduction in the damages estimate from \$365,398,000 to \$299,394,202 in the 2002-2008 time period.

**Exhibit 3**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>1</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 39 of Dr. Foreman's Report
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			(c)*1,098				
2002	\$ 750,089,102	\$ 636,444,922	\$ 698,816,525	\$ 46,843,501	\$ 32,729,701	\$ 40,218,017	
2003	900,255,524	761,926,417	836,595,206	56,215,835	38,805,197	47,572,081	
2004	942,128,360	803,104,275	881,808,493	59,344,745	40,787,471	56,522,445	
2005	1,038,002,965	885,239,811	971,993,312	65,146,320	44,927,012	58,050,374	
2006	1,053,613,563	897,579,706	985,542,517	65,601,614	45,661,677	57,383,027	
2007	1,096,780,260	937,753,449	1,029,653,287	68,437,199	47,646,048	47,646,048	
2008	1,121,478,978	960,956,166	1,055,129,870	70,026,209	48,837,096	58,006,008	
Total:	\$ 6,902,348,751	\$ 5,883,004,746	\$ 6,459,539,211	\$ 431,615,424	\$ 299,394,202	\$ 365,398,000	

<sup>1</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

**C. Dr. Foreman errs in his calculation of the medical and dental adjustment factors**

**1) Dr. Foreman used the wrong contributor dataset to calculate his 2007 contributor data percentile values**

32. As discussed earlier, Dr. Foreman states that he made the following comparisons between

the contributor data and the Ingenix PHCS database:

- a. 2006 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2005-2 and 2006-1, respectively;
- b. 2007 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2006-2 and 2007-1, respectively; and
- c. 2008 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2007-2 and 2008-1, respectively.

33. However, there is an error in his 2007 contributor data comparisons. Dr. Foreman lists a similar set of procedure code-geozip combinations in both his 2007 contributor data

comparisons and his 2008 contributor data comparisons. In fact, for all of the procedure code-geozip combinations used by Dr. Foreman for the 300 CPT analysis common to both his 2007 and his 2008 contributor data comparisons, his calculated contributor data occurrences and percentile values for 2007 are identical to his calculated contributor data occurrences and percentile values for 2008, respectively. This indicates that the same underlying contributor data were used to generate Dr. Foreman's contributor data percentile values for both 2007 and 2008.

34. I compared the number of occurrences for each procedure code-geozip combination arising from the actual 2007 contributor data and from the actual 2008 contributor data, respectively, to the corresponding number of occurrences associated with Dr. Foreman's calculated 2007 contributor data percentile values. I find that when I make the comparison to the actual 2007 contributor data, at most 3.62% of the procedure code-geozip combinations are within 1% of Dr. Foreman's number of occurrences and at most 17.82% of the procedure code-geozip combinations are within 5% of Dr. Foreman's number of occurrences. However, when I make the comparison to the actual 2008 contributor data, 92.04% of procedure code-geozip combinations are within 1% of Dr. Foreman's number of occurrences and 97.95% of combinations are within 5% of Dr. Foreman's number of occurrences. These results strongly suggest that Dr. Foreman calculates his 2007 contributor data percentile values using the 2008 contributor data.

## **2) Dr. Foreman misunderstands dental module release dates**

35. Dr. Foreman does not match the appropriate Ingenix PHCS dental module with the contributor data, even based on the methodology he describes in his report.

36. Dr. Foreman asserts that he does not have Ingenix PHCS data for 2006. Hence, he was limited to making the following comparisons for dental procedures:<sup>46</sup>

- a. 2006 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycle 2005-2;
- b. 2007 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycle 2007-1; and
- c. 2008 contributor data percentile values are compared to Ingenix PHCS data percentile values from cycles 2007-2 and 2008-1, respectively.

37. However, the dental PHCS module is on a different release schedule from the medical and surgical PHCS modules. While the medical and surgical PHCS modules are released in May and November, the dental PHCS module is released in January and July.<sup>47</sup> This means that Aetna loads cycle 1 of the same calendar year of the PHCS dental module in the beginning of the year and cycle 2 of the same calendar year in the middle of the year; this is different for the medical and surgical modules. For example, in early 2006, while Aetna loaded the 2005-2 release of the PHCS medical and surgical modules, it loaded the *2006-1* release of the PHCS dental module into its ACAS system. Likewise, in mid to late 2006, while Aetna loaded the 2006-1 release of the PHCS medical and surgical modules, it loaded the *2006-2* release of the PHCS dental module into its ACAS system. Thus, if I were to follow Dr. Foreman's intended methodology for this exercise, the contributor data percentile values should be compared to the PHCS dental data percentile values corresponding to cycles 1 and 2 of the same calendar year rather than to cycle 2 of the prior calendar year and cycle 1 of the same calendar year.

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<sup>46</sup> Foreman Merits Report, ¶315 and Table 32.

<sup>47</sup> AET-00297168 – AET-00297170.

38. A more consistent application of the methodology described in Dr. Foreman's report (taking that methodology as given) for dental procedures is the following:

- a. 2006 contributor data are compared to Ingenix PHCS data from cycles 2006-1 and 2006-2, respectively;
- b. 2007 contributor data are compared to Ingenix PHCS data from cycles 2007-1 and 2007-2, respectively; and
- c. 2008 contributor data are compared to Ingenix PHCS data from cycles 2008-1 and 2008-2, respectively.

**D. Correction: Recalculating the adjustment factors for medical and dental procedures**

**1) Recalculating the medical adjustment factor**

39. As discussed, Dr. Foreman erred in the application of his own methodology because he uses the wrong data to calculate his 2007 contributor data percentile values. To correct for this error, I exclude the comparisons to the 2007 contributor data from the calculation of the adjustment factor in Tables 29 and 30 of Dr. Foreman's report.<sup>48</sup> Excluding the comparisons to the 2007 contributor data, the adjustment factor for medical procedures drops from 11.25% to 9.56%, as shown in **Appendix C-1**.

**2) Recalculating the dental adjustment factor**

40. As I did for medical procedures, I exclude the comparisons to the 2007 contributor data from the calculation of the adjustment factor for dental procedures. This is because Dr.

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<sup>48</sup> Alternatively, I could have calculated the 2007 contributor data percentile values as Dr. Foreman would calculate them, performed my own comparison to the PHCS database, and calculated the appropriate percent differences by percentile. However, Dr. Foreman did not turn over all of the computer code, intermediate datasets, and instructions required to replicate his work, and I was not able to supplement 2007 contributor data percentile values that would have arisen from a correction to the application of his methodology in my replication.

Therefore, I am simply excluding the comparisons to the 2007 contributor data from the analysis in Tables 29 and 30 to calculate the corrected adjustment factor.

Foreman erred in the application of his own methodology by using the wrong year of data.<sup>49</sup>

In addition, there are other issues with regard to Dr. Foreman's comparisons for the dental procedures.

41. The first issue relates to the comparisons to the 2006 Ingenix PHCS dental database percentile values that are missing from Dr. Foreman's report. The 2006 Ingenix PHCS databases have been produced in this litigation, so I am able to supplement the 2006 PHCS dental data to perform the comparisons of the 2006 contributor data to the Ingenix PHCS dental data for 2006.<sup>50</sup>
42. The second issue relates to Dr. Foreman's misunderstanding of dental module release dates. I correct for this error by realigning the comparisons such that, like the medical procedure comparisons, I compare the percentile values arising from the full calendar year of contributor data to the two cycles that were loaded into Aetna's ACAS system during that calendar year.
43. This means that for my dental comparisons, I compare:
  - a. 2006 contributor data to Ingenix PHCS cycles 2006-1 and 2006-2, respectively; and
  - b. 2008 contributor data to Ingenix PHCS cycle 2008-1.<sup>51</sup>
44. Taking into account all of the above factors, the adjustment factor for dental procedures drops from 9.8% to 6.36%, as shown in **Appendix C-2**.

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<sup>49</sup> Similar to the medical damages calculations, because Dr. Foreman did not turn over all of the computer code, intermediate datasets, and instructions required to replicate his work, I was not able to supplement 2007 contributor data percentile values that would have arisen from a correction to the application of his methodology in my replication. Therefore, I am simply excluding the comparisons to the 2007 contributor data from the analysis in Table 32 to calculate the corrected adjustment factor.

<sup>50</sup> Though Dr. Foreman did not turn over all the computer code, intermediate datasets, and instructions required to replicate his work, I was able to supplement the 2006 Ingenix PHCS cycles percentile values in my replication. Thus, I am able to make the comparisons to the 2006 Ingenix PHCS data as he would have made them.

<sup>51</sup> Ingenix PHCS cycle 2008-2 was not produced in this litigation.

**3) Applying the “accurate allowed” methodology as described in Dr. Foreman’s report using the corrected adjustment factors**

45. I now apply Dr. Foreman’s “accurate allowed” method as he describes it in his report using the recalculated adjustment factors. To do so, I calculate an “accurate allowed amount” by increasing the allowed amount for his class member claim lines by the recalculated adjustment factors: 9.56% for his medical class member claim lines and 6.36% for his dental class member claim lines. I then compare the “accurate allowed amount” to the billed charge for each class member claim line. If the “accurate allowed amount” exceeds the billed charge, preliminary damages are equal to the difference between the billed charge and the allowed amount. Otherwise, preliminary damages equal the difference between the “accurate allowed amount” and the allowed amount. As shown in Exhibit 4, the damages estimate for Dr. Foreman’s medical class member claim lines in the 2002-2008 time period decreases to \$140,340,516.

**Exhibit 4**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 9.56%**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>1</sup>	Preliminary Damages Estimate			Final Damages Estimate	
			Based on Dr. Foreman's Report Methodology		Presented in Table 35 of Dr. Foreman's Report		
			(Dollars)	(c)*1.0956	(e)	(f)	(g)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
2002	\$ 463,213,149	\$ 317,478,220	\$ 347,829,138	\$ 27,509,142	\$ 20,334,145	\$ 63,165,002	
2003	482,813,739	327,112,940	358,384,937	28,320,065	20,475,683	61,830,620	
2004	473,668,745	318,696,781	349,164,193	27,730,243	19,327,368	59,595,027	
2005	478,322,265	318,053,057	348,458,930	27,699,097	18,709,229	54,945,402	
2006	528,881,444	347,621,152	380,853,734	30,373,193	20,037,310	58,332,611	
2007	552,712,954	355,592,072	389,586,674	31,260,210	20,263,084	61,186,539	
2008	596,960,161	369,459,665	404,780,009	32,849,717	21,193,697	67,892,148	
Total: \$	<b>\$ 3,576,572,456</b>	<b>\$ 2,354,013,887</b>	<b>\$ 2,579,057,614</b>	<b>\$ 205,741,668</b>	<b>\$ 140,340,516</b>	<b>\$ 426,947,349</b>	

<sup>1</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*.

Appendix C-1.

46. As shown in Exhibit 5, applying the same correction to Dr. Foreman's dental class member claim lines results in a decrease in the damages estimate to \$218,299,555 in the 2002-2008 time period.

**Exhibit 5**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 6.36%**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>1</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 39 of Dr. Foreman's Report
(a)	(b)	(c)	(d) (c)*1.0636	(e)	(f)	(g)	
2002	\$ 750,089,102	\$ 636,444,922	\$ 676,922,820	\$ 34,211,400	\$ 23,878,371	\$ 40,218,017	
2003	900,255,524	761,926,417	810,384,937	40,978,104	28,283,214	47,572,081	
2004	942,128,360	803,104,275	854,181,706	43,187,176	29,684,905	56,522,445	
2005	1,038,002,965	885,239,811	941,541,063	47,419,578	32,730,315	58,050,374	
2006	1,053,613,563	897,579,706	954,665,775	47,796,857	33,296,307	57,383,027	
2007	1,096,780,260	937,753,449	997,394,569	49,896,564	34,772,519	47,646,048	
2008	1,121,478,978	960,956,166	1,022,072,978	51,079,205	35,653,924	58,006,008	
Total:	\$ 6,902,348,751	\$ 5,883,004,746	\$ 6,257,163,848	\$ 314,568,884	\$ 218,299,555	\$ 365,398,000	

<sup>1</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Appendix C-1.

**E. Dr. Foreman does not apply the adjustment factors appropriately for some class member claim lines**

47. Some dental procedures are covered by medical plans. For example, a patient who needs dental surgery after an auto accident might have the dental procedures covered by her medical insurance, not her dental insurance. In this case, those dental charges would appear in Aetna's medical data, not in its dental data. Likewise, some medical procedures are covered by dental plans. In that case, those medical procedures would appear in Aetna's dental data, not in its medical data.

48. Dr. Foreman misunderstands Aetna's ACAS data and applies the medical adjustment factor to all class member claim lines in the medical data, including dental procedures. Likewise, he applies the dental adjustment factor to all class member claim lines in the dental data,

including medical<sup>52</sup> procedures. Even if I were to accept the methodology described in Dr. Foreman's report, Dr. Foreman should have applied the medical adjustment factor only to non-dental procedures, and the dental adjustment factor only to dental procedures to arrive at the "accurate allowed amount."<sup>53</sup>

**F. Correction: Applying the "accurate allowed" methodology as described in Dr. Foreman's report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental**

49. I apply the "accurate allowed" method as Dr. Foreman describes it in his report using the corrected adjustment factors of 9.56%<sup>54</sup> for all class member claim lines associated with medical procedures<sup>55</sup> and 6.36%<sup>56</sup> for all class member claim lines associated with dental procedures. This means that the damages amounts associated with some class member claim lines move from the dental damages table to the medical damages table and vice versa. As shown in Exhibit 6, damages related to medical procedures in the 2002-2008 time period decrease to \$138,143,614.

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<sup>52</sup> By medical procedures I am referring to all non-dental procedures.

<sup>53</sup> Dr. Foreman includes claim lines associated with an invalid procedure code in his dental data. In this step, I am also removing those claim lines because they are not considered medical or dental procedures.

<sup>54</sup> See IV.D.1).

<sup>55</sup> Consistent with Dr. Foreman's methodology, I apply the medical adjustment factor, which is based on medical and surgical procedures, to all class member claim lines associated with non-dental procedures, including class member claim lines associated with HCPCS procedures.

<sup>56</sup> See IV.D.2).

**Exhibit 6**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 9.56%**  
**For all Class Member Claim Lines with a Non-Dental Procedure Code<sup>1</sup>**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>2</sup>	Preliminary Damages Estimate		Final Damages Estimate	
			Based on Dr. Foreman's "Accurate Allowed"	Report Methodology	Based on Dr. Foreman's Report Methodology	Presented in Table 35 of Dr. Foreman's Report
(Dollars)						
(a)	(b)	(c)	(d) (c)*1.0956	(e)	(f)	(g)
2002	\$ 460,642,988	\$ 315,471,064	\$ 345,630,098	\$ 27,341,386	\$ 20,222,773	\$ 63,165,002
2003	475,620,748	321,545,251	352,284,977	27,861,651	20,195,351	61,830,620
2004	465,042,387	311,854,889	341,668,216	27,168,060	18,982,206	59,595,027
2005	468,782,190	310,329,838	339,997,371	27,122,706	18,373,886	54,945,402
2006	518,753,611	339,495,412	371,951,173	29,729,943	19,676,658	58,332,611
2007	541,664,829	346,569,170	379,701,182	30,553,961	19,874,872	61,186,539
2008	586,045,252	360,600,445	395,073,848	32,145,715	20,817,867	67,892,148
<b>Total:</b>	<b>\$ 3,516,552,006</b>	<b>\$ 2,305,866,069</b>	<b>\$ 2,526,306,865</b>	<b>\$ 201,923,422</b>	<b>\$ 138,143,614</b>	<b>\$ 426,947,349</b>

<sup>1</sup> This table corrects Dr. Foreman's medical class member definition by including all of his class member claim lines that relate to a non-dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Appendix C-1.

50. As shown in Exhibit 7, damages related to dental procedures in the 2002-2008 time period decrease to \$219,912,213.

**Exhibit 7**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 6.36%**  
**For all Class Member Claim Lines with a Dental Procedure Code<sup>1</sup>**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>2</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 39 of Dr. Foreman's Report
(a)	(b)	(c)	(d) (c)*1.0636	(e)	(f)	(g)	
2002	\$ 752,656,626	\$ 638,450,057	\$ 679,055,481	\$ 34,331,393	\$ 23,958,209	\$ 40,218,017	
2003	907,436,748	767,485,177	816,297,234	41,308,045	28,485,245	47,572,081	
2004	950,754,184	809,945,802	861,458,355	43,593,742	29,935,246	56,522,445	
2005	1,047,542,891	892,962,941	949,755,384	47,843,708	32,978,431	58,050,374	
2006	1,063,741,336	905,705,400	963,308,264	48,267,115	33,561,043	57,383,027	
2007	1,107,826,273	946,775,520	1,006,990,443	50,421,741	35,063,642	47,646,048	
2008	1,132,393,056	969,814,682	1,031,494,895	51,596,371	35,930,397	58,006,008	
<b>Total:</b>	<b>\$ 6,962,351,114</b>	<b>\$ 5,931,139,580</b>	<b>\$ 6,308,360,057</b>	<b>\$ 317,362,114</b>	<b>\$ 219,912,213</b>	<b>\$ 365,398,000</b>	

<sup>1</sup> This table corrects Dr. Foreman's dental class member definition by including all of his class member claim lines that relate to a dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Appendix C-1.

## G. Dr. Foreman defines class member claim lines incorrectly

### 1) Inappropriate class member claim lines

51. Dr. Foreman's class member claim line definition<sup>57</sup> results in the inclusion of some claim lines that should not be considered class members. This includes (a) claim lines with a billed charge less than or equal to the allowed amount, (b) some claim lines that are not paid

<sup>57</sup> Dr. Foreman's class member definition appears to include claim lines: (a) that are current (i.e., not claim lines that have since been adjusted), (b) with a procedure code that is 5 characters in length, (c) for a service provided by a non-par provider, (d) at the non-preferred benefit level, (e) that are non-NAP, (f) that are not Medicare, (g) that were reimbursed based on the Ingenix PHCS database, (h) with a billed charge greater than zero, (i) with a billed charge greater than the actual price, (j) with an allowed amount greater than zero, and (k) without select modifiers that Dr. Foreman contends could affect reimbursement.

at the non-preferred benefit level,<sup>58</sup> (c) claim lines where Aetna is the secondary payer in a commercial coordination of benefits situation,<sup>59</sup> (d) claim lines that were never accepted into Aetna's ACAS system and are thus invalid,<sup>60</sup> and (e) claim lines that reflect facility charges. Dr. Foreman's inclusion of inappropriate class member claim lines overstates the number of class members and thus the damages associated with them.

**2) Dr. Foreman's uninjured class member claim lines**

52. During his deposition, Dr. Foreman stated that class member claim lines reimbursed using an Ingenix PHCS percentile value that is greater than or equal to the contributor data percentile value he calculated in his 300 CPT study should be excluded from the damages calculation.<sup>61</sup>
53. Tables 22 and 24 in Dr. Foreman's merits report provide some information on how often the Ingenix PHCS value is greater than or equal to the contributor data value calculated in the 300 CPT study. Specifically, Table 22 summarizes the comparisons between the Ingenix PHCS 80<sup>th</sup> percentile value and Dr. Foreman's 80<sup>th</sup> percentile value based on the contributor data for the procedure code-geozip combinations that he compared in his 300 CPT study. Table 24 presents a similar comparison for the 90<sup>th</sup> percentile value. These tables suggest that, even taking all of Dr. Foreman's figures as given, for a number of the procedure code-geozip combinations that he compares in his 300 CPT study, the Ingenix PHCS percentile

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<sup>58</sup> Dr. Foreman incorrectly includes claim lines with a benefit level value of "OT". These claim lines are considered neither preferred nor non-preferred. See Letter from Sigler to Weiswasser, *Re: MDL 2020*, December 4, 2009, pp. 1-2.

<sup>59</sup> See Letter from Sigler to Berger, *Re: MDL 2020*, December 22, 2009, p. 2.

<sup>60</sup> Some claim lines among Dr. Foreman's class member claim lines reflect (a) claim lines that have been closed out (and reworked under a different claim ID), (b) claim lines that are pended, and (c) claim lines that reflect a request for a reimbursement estimate sent in by the provider.

<sup>61</sup> Deposition of Stephen Foreman, November 1, 2010, pp. 311-313.

value exceeds his calculated contributor data percentile value.<sup>62</sup> Thus, class member claim lines that are associated with those procedure code-geozip combinations for the relevant cycles and reimbursed at the relevant percentiles should not be included in Dr. Foreman's damages calculation, according to his deposition testimony.

54. Because his 300 CPT study was limited in scope, there are class member claim lines associated with procedure code-geozip combinations for which Dr. Foreman did not perform a comparison of the Ingenix PHCS percentile value to the contributor data percentile value in his 300 CPT study.
55. To the extent that there are errors in Dr. Foreman's 300 CPT study, including those that I discuss in section IV of this report, the results from his 300 CPT study could understate the number of class member claim lines that Dr. Foreman states should be removed from his damages calculation.

**H. Correction: Applying the “accurate allowed” methodology as described in Dr. Foreman’s report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental, excluding inappropriate class member claim lines**

56. I apply the “accurate allowed” method as Dr. Foreman describes it in his report using the corrected adjustment factors of 9.56%<sup>63</sup> for class member claim lines associated with medical procedures and 6.36%<sup>64</sup> for class member claim lines associated with dental procedures, excluding inappropriate class member claim lines discussed in section IV.G.1) above (claim lines that represent uninjured class members, as defined by Dr. Foreman, have

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<sup>62</sup> For example, his summary for the medical-surgical comparison of the 2008 contributor data to the Ingenix PHCS data for cycle 2008-1 shows that, for 43.8% of the procedure code-geozip combinations, the Ingenix PHCS 80<sup>th</sup> percentile value is greater than or equal to the contributor data 80<sup>th</sup> percentile value.

<sup>63</sup> See IV.D.1).

<sup>64</sup> See IV.D.2).

not been removed). As shown in Exhibit 8, damages related to medical procedures in the 2002-2008 time period decrease to \$129,836,072.

**Exhibit 8**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 9.56%**  
**For all Class Member Claim Lines with a Non-Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>3</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 35 of Dr. Foreman's Report
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			(c)*1.0956				
2002	\$ 435,452,801	\$ 299,753,657	\$ 328,410,106	\$ 25,972,207		\$ 19,183,196	\$ 63,165,002
2003	447,424,224	302,955,955	331,918,544	26,265,666		18,965,247	61,830,620
2004	437,292,912	293,568,386	321,633,524	25,590,294		17,780,973	59,595,027
2005	438,742,663	291,309,786	319,159,001	25,467,881		17,130,872	54,945,402
2006	486,212,189	319,872,630	350,452,454	28,054,520		18,455,560	58,332,611
2007	509,989,196	328,274,310	359,657,335	28,966,626		18,730,218	61,186,539
2008	550,645,513	341,267,607	373,892,790	30,437,711		19,590,006	67,892,148
Total:	\$ 3,305,759,498	\$ 2,177,002,331	\$ 2,385,123,754	\$ 190,754,905		\$ 129,836,072	\$ 426,947,349

<sup>1</sup> This table corrects Dr. Foreman's medical class member definition by including all of his class member claim lines that relate to a non-dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Appendix C-1.

57. As shown in Exhibit 9, applying the same correction to dental procedures results in a reduction in the damages estimate to \$181,188,173 in the 2002-2008 time period.

**Exhibit 9**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 6.36%**  
**For all Class Member Claim Lines with a Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**

**2002 - 2008**

Year	Billed Charges	Allowed <sup>3</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 39 of Dr. Foreman's Report
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			(c)*1.0636				
2002	\$ 586,247,299	\$ 498,023,324	\$ 529,697,608	\$ 26,900,656		\$ 19,404,542	\$ 40,218,017
2003	714,250,133	606,271,110	644,829,952	32,738,344		23,292,628	47,572,081
2004	747,068,276	637,687,729	678,244,668	34,416,974		24,419,670	56,522,445
2005	835,764,853	714,616,778	760,066,405	38,364,480		27,337,096	58,050,374
2006	860,324,337	734,783,665	781,515,907	39,226,775		28,153,792	57,383,027
2007	888,468,768	761,102,559	809,508,681	40,585,841		29,171,599	47,646,048
2008	891,718,519	765,243,931	813,913,445	40,750,759		29,408,846	58,006,008
<b>Total:</b>	<b>\$ 5,523,842,185</b>	<b>\$ 4,717,729,096</b>	<b>\$ 5,017,776,666</b>	<b>\$ 252,983,829</b>		<b>\$ 181,188,173</b>	<b>\$ 365,398,000</b>

<sup>1</sup> This table corrects Dr. Foreman's dental class member definition by including all of his class member claim lines that relate to a dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Appendix C-1.

## I. Dr. Foreman does not account for the date of service correctly

58. Dr. Foreman asserts that he is using only ACAS data for 2002-2008 to arrive at his class member claim lines.<sup>65</sup> However, Dr. Foreman includes some claim lines with a date of service prior to 2002 among his class member claim lines. Because of this erroneous inclusion, Dr. Foreman overstates the number of class members and thus the damages associated with them for this time period.

<sup>65</sup> Dr. Foreman states that he does not use 2001 ACAS data because it appears incomplete to him. See Foreman Merits Report, ¶410.

**J. Correction: Applying the “accurate allowed” method as described in his report using the corrected adjustment factors and applying them appropriately based on whether the procedure is medical or dental, excluding inappropriate class member claim lines and class member claim lines with a date of service prior to 2002**

59. I apply the “accurate allowed” method as Dr. Foreman describes it in his report using the corrected adjustment factors of 9.56%<sup>66</sup> for medical procedures among his class member claim lines, and 6.36%<sup>67</sup> for dental procedures, excluding inappropriate class member claim lines and class member claim lines with a date of service prior to 2002, and aggregating damages by year of service. As shown in Exhibit 10, the damages estimate for medical procedures in the 2002-2008 time period drops to \$127,483,932.

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<sup>66</sup> See IV.D.1).

<sup>67</sup> See IV.D.2).

**Exhibit 10**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 9.56%**  
**For all Class Member Claim Lines with a Non-Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**  
**By Year of Service<sup>3</sup>**

**2002 - 2008**

Year of Service	Billed Charges	Allowed <sup>4</sup>	Preliminary Damages Estimate		Final Damages Estimate	
			"Accurate Allowed"	Based on Dr. Foreman's Report Methodology	Based on Dr. Foreman's Report Methodology	Presented in Table 35 of Dr. Foreman's Report
(a)	(b)	(c)	(d)	(e)	(f)	(g)
			(c)*1.0956			
2002	\$ 446,648,952	\$ 306,516,067	\$ 335,819,002	\$ 26,583,933	\$ 19,640,673	\$ 63,165,002
2003	437,065,361	296,143,920	324,455,279	25,671,757	18,408,930	61,830,620
2004	385,140,557	259,200,430	283,979,991	22,575,472	15,527,673	59,595,027
2005	438,742,663	291,309,786	319,159,001	25,467,881	17,130,872	54,945,402
2006	486,212,189	319,872,630	350,452,454	28,054,520	18,455,560	58,332,611
2007	509,989,196	328,274,310	359,657,335	28,966,626	18,730,218	61,186,539
2008	550,645,513	341,267,607	373,892,790	30,437,711	19,590,006	67,892,148
Total:	\$ 3,254,444,431	\$ 2,142,584,751	\$ 2,347,415,853	\$ 187,757,900	\$ 127,483,932	\$ 426,947,349

<sup>1</sup> This table corrects Dr. Foreman's medical class member definition by including all of his class member claim lines that relate to a non-dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>4</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Appendix C-1.

60. As shown in Exhibit 11, applying the same correction to his dental procedures results in a decrease in the damages estimate to \$180,274,185 in the 2002-2008 time period.

**Exhibit 11**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 6.36%**  
**For all Class Member Claim Lines with a Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**  
**By Year of Service<sup>3</sup>**

**2002 - 2008**

Year of Service	Preliminary Damages Estimate					Final Damages Estimate	
	Billed Charges	Allowed <sup>4</sup>	"Accurate Allowed"	Based on Dr. Foreman's Report Methodology	Based on Dr. Foreman's Report Methodology	Presented in Table 39 of Dr. Foreman's Report	
	(Dollars)						
(a)	(b)	(c)	(d) (c)*1.0636	(e)	(f)	(g)	
2002	\$ 602,275,931	\$ 511,144,347	\$ 543,653,128	\$ 27,652,831	\$ 19,910,566	\$ 40,218,017	
2003	708,117,504	601,630,559	639,894,262	32,471,437	23,115,833	47,572,081	
2004	708,356,233	605,331,666	643,830,760	32,649,026	23,176,454	56,522,445	
2005	835,764,853	714,616,778	760,066,405	38,364,480	27,337,096	58,050,374	
2006	860,324,337	734,783,665	781,515,907	39,226,775	28,153,792	57,383,027	
2007	888,468,768	761,102,559	809,508,681	40,585,841	29,171,599	47,646,048	
2008	891,718,519	765,243,931	813,913,445	40,750,759	29,408,846	58,006,008	
<b>Total:</b>	<b>\$ 5,495,026,144</b>	<b>\$ 4,693,853,505</b>	<b>\$ 4,992,382,588</b>	<b>\$ 251,701,148</b>	<b>\$ 180,274,185</b>	<b>\$ 365,398,000</b>	

<sup>1</sup> This table corrects Dr. Foreman's dental class member definition by including all of his class member claim lines that relate to a dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>4</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Appendix C-1.

**K. Summary: Recalculation of Dr. Foreman's damages using the "accurate allowed" method for 2002-2008**

61. Even taking Dr. Foreman's "accurate allowed" method at face value and taking as given all of Dr. Foreman's calculations other than the errors set forth above, these errors result in a substantial overstatement of damages. In Exhibit 12, I show the recalculated damages figures as I account for each of the errors discussed above. These corrections are cumulative such that, at each step, all corrections from prior steps have been incorporated.

**Exhibit 12**  
**Cumulative Summary of Recalculated Medical and Dental Damages Estimates**  
**Using the "Accurate Allowed" Method**  
**By Correction(s) Applied**

**2002-2008**

<b>Correction(s) Applied</b>	<b>Final Damages Estimate</b>	
	<b>Medical</b>	<b>Dental</b>
	<b>(Dollars)</b>	
(a)	(b)	(c)
No correction (Figures represent those in Tables 35 and 39 of Dr. Foreman's merits report)	\$ 426,947,349	\$ 365,398,000
Application of the "accurate allowed" method as described in Dr. Foreman's merits report	\$ 161,480,609	\$ 299,394,202
Above with recalculated adjustment factors of 9.56% and 6.36% for medical and dental claim lines, respectively	\$ 140,340,516	\$ 218,299,555
Above with the appropriate application of the adjustment factor based on whether the procedure is medical or dental	\$ 138,143,614	\$ 219,912,213
Above with additional limitations to class member claim lines (excluding claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system)	\$ 129,836,072	\$ 181,188,173
Above with the removal of claim lines with a date of service prior to 2002	\$ 127,483,932	\$ 180,274,185

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Creating Aetna Damage Estimates v5.docx*,

*Aetna2002 Medical Damaged Claims.csv - Aetna2008 Medical Damaged Claims.csv*,

*Aetna2002 Dental Damaged Claims.csv - Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Appendices C-1 and C-2.

62. If I apply Dr. Foreman's "accurate allowed" method with no embedded "billed charge" method, adjust for Dr. Foreman's use of contributor data from the wrong year for his 2007 calculations, adjust for Dr. Foreman's misunderstanding of the Ingenix release dates for the

dental modules, apply Dr. Foreman's "medical and surgical" adjustment factor to claim lines associated with non-dental procedures and his "dental" adjustment factor to claim lines associated with dental procedures, exclude invalid class member claim lines, and exclude class member claim lines with a date of service prior to 2002, the medical damages estimate decreases by 70%, and the dental damages estimate decreases by 51%, compared to Dr. Foreman's respective estimates. However, these figures have only been recalculated accounting for the errors I have described above in his application of the "accurate allowed" methodology. I continue to review Dr. Foreman's analyses and report turnover. Given that Dr. Foreman's turnover is incomplete, further analyses may be necessary depending on the materials that I receive.

**L. Additional analyses relating to Dr. Foreman's "accurate allowed" damages methodology**

**1) Application of damages estimates to the entirety of the class period**

63. My corrections to Dr. Foreman's damages estimates in the previous sections are calculated for 2002 through 2008, based on the available data. In order to account for the entirety of the alleged class period, Dr. Foreman applies his respective 2002 and 2008 damages estimates to the following years: 1998 through 2001; and 2009 and 2010, respectively.<sup>68</sup> However, Dr. Foreman's damages estimates are overstated because he calculates damages for time periods outside of the class periods defined in the Complaint. The earliest subscriber plaintiffs' class period begins on March 1, 2001,<sup>69</sup> and the earliest provider

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<sup>68</sup> In his report, Dr. Foreman describes a method in which he uses his 2002 damages estimates for 1998 through 2001, his 2008 damages estimate for 2009, and half of his 2008 damages estimates for 2010. This is the methodology applied in his calculation of damages for dental procedures in Table 40 and also his calculation of damages for medical procedures in his corrected Table 36.

<sup>69</sup> Class Action Complaint, ¶¶549-554.

plaintiffs' class period begins on June 3, 2003.<sup>70</sup> Dr. Foreman inappropriately calculates damages for 1998 through February 2001, a time period which is outside of both the subscriber and the provider class periods. He also does not undertake any attempts to separate damages between subscribers and providers, respectively, to account for the different class periods defined in the Complaint. Dr. Foreman acknowledged in his deposition that it is possible to do this using the Aetna ACAS data.<sup>71</sup> Dr. Foreman's inclusion of damages associated with claim lines assigned to providers between March 1, 2001 and June 2, 2003 further overstates his damages estimates.

64. I have applied Dr. Foreman's "accurate allowed" methodology, using the corrected adjustment factors of 9.56%<sup>72</sup> for medical procedures, and 6.36%<sup>73</sup> for dental procedures, excluding inappropriate class member claim lines and class member claim lines with a date of service prior to 2002, aggregating damages by year of service, *as well as* extrapolating damages estimates to the earlier and later years consistent with the way that Dr. Foreman describes in his report.<sup>74</sup> For the extrapolation, I have applied ten-twelfths of the recalculated 2002 figures to 2001, the recalculated 2008 figures to 2009, and six-twelfths of the recalculated 2008 figures to 2010, including only damages associated with class member claim lines that were assigned to the subscriber for the time period prior to June 3, 2003. As

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<sup>70</sup> Class Action Complaint, ¶¶562-563.

<sup>71</sup> Deposition of Stephen Foreman, November 1, 2010, pp. 297-298. Based on his deposition testimony it appears that he is referring to fields that identify the payee on a claim. However, in some instances, payment on a single claim could be made to both the provider and the subscriber. It is unclear to whom Dr. Foreman would allocate damages in those situations. For the purpose of my analysis, I am using the fields in the data that identify whether the benefits on the claim line were assigned to the provider or the subscriber.

<sup>72</sup> See IV.D.1).

<sup>73</sup> See IV.D.2).

<sup>74</sup> Foreman Merits Report, ¶¶425 and 445.

shown in Exhibit 13, the damages estimate for medical procedures during the class period would be \$133,416,474, which is about 17% of Dr. Foreman's estimate of \$781,445,576.

**Exhibit 13**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 9.56%**  
**For all Class Member Claim Lines with a Non-Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**  
**By Year of Service<sup>3</sup>**  
**For Claim Lines Assigned to Subscribers and Providers During their Respective Class Periods<sup>4</sup>**

**1998 - 2010**

Year of Service	Billed Charges	Allowed <sup>5</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 36 of Dr. Foreman's Report
(a)	(b)	(c)	(d) (c)*1.0956	(e)	(f)	(g)	
1998	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 63,165,002	
1999	--	--	--	--	--	63,165,002	
2000	--	--	--	--	--	63,165,002	
2001 <sup>6</sup>	37,899,044	25,894,763	28,370,302	2,326,218	1,494,151	63,165,002	
2002	45,478,853	31,073,715	34,044,362	2,791,461	1,792,981	63,165,002	
2003	264,552,156	178,491,508	195,555,296	15,501,561	11,310,004	61,830,620	
2004	385,140,557	259,200,430	283,979,991	22,575,472	15,527,673	59,595,027	
2005	438,742,663	291,309,786	319,159,001	25,467,881	17,130,872	54,945,402	
2006	486,212,189	319,872,630	350,452,454	28,054,520	18,455,560	58,332,611	
2007	509,989,196	328,274,310	359,657,335	28,966,626	18,730,218	61,186,539	
2008	550,645,513	341,267,607	373,892,790	30,437,711	19,590,006	67,892,148	
2009	550,645,513	341,267,607	373,892,790	30,437,711	19,590,006	67,892,148	
2010 <sup>7</sup>	275,322,756	170,633,804	186,946,395	15,218,856	9,795,003	33,946,074	
<b>Total:</b>	<b>\$ 3,544,628,440</b>	<b>\$ 2,287,286,160</b>	<b>\$ 2,505,950,717</b>	<b>\$ 201,778,017</b>	<b>\$ 133,416,474</b>	<b>\$ 781,445,576</b>	

-- not applicable

Note: Dr. Foreman does not use actual data for his 1998 - 2001 and 2009 - 2010 damages estimates. For 1998 - 2000 and 2009 - 2010, Aetna ACAS data are not available. Dr. Foreman does not use the 2001 Aetna ACAS data because he believes it is incomplete. In Table 36, Dr. Foreman uses his 2002 damages estimates for 1998 through 2001, his 2008 damages estimates for 2009, and half of his 2008 damages estimates for 2010. Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

<sup>1</sup> This table corrects Dr. Foreman's medical class member definition by including all of his class member claim lines that relate to a non-dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>4</sup> The earliest subscriber class period begins on March 1, 2001 while the earliest provider class period begins on June 3, 2003.

<sup>5</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

<sup>6</sup> Represents March - December 2001 for my estimates in columns (b) - (f) and the entire year for Dr. Foreman's estimates in column (g).

<sup>7</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010. Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Medical Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

Appendix C-1.

65. As shown in Exhibit 14, the damages estimate for dental procedures during the class period would be \$198,787,422, which is approximately 32% of Dr. Foreman's estimate of \$613,279,080.

**Exhibit 14**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 6.36%**  
**For all Class Member Claim Lines with a Dental Procedure Code<sup>1</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>2</sup>**  
**By Year of Service<sup>3</sup>**  
**For Claim Lines Assigned to Subscribers and Providers During their Respective Class Periods<sup>4</sup>**

**1998 - 2010**

Year of Service	Billed Charges	Allowed <sup>5</sup>	"Accurate Allowed"	Preliminary Damages Estimate		Final Damages Estimate	
				Based on Dr. Foreman's Report Methodology	(Dollars)	Based on Dr. Foreman's Report Methodology	Presented in Table 40 of Dr. Foreman's Report
(a)	(b)	(c)	(d) (c)*1.0636	(e)	(f)	(g)	
1998	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 40,218,017	
1999	--	--	--	--	--	40,218,017	
2000	--	--	--	--	--	40,218,017	
2001 <sup>6</sup>	52,344,629	41,532,176	44,173,623	2,387,027	1,675,127	40,218,017	
2002	62,813,555	49,838,612	53,008,348	2,864,433	2,010,153	40,218,017	
2003	417,409,820	353,598,202	376,087,048	19,114,163	13,741,085	47,572,081	
2004	708,356,233	605,331,666	643,830,760	32,649,026	23,176,454	56,522,445	
2005	835,764,853	714,616,778	760,066,405	38,364,480	27,337,096	58,050,374	
2006	860,324,337	734,783,665	781,515,907	39,226,775	28,153,792	57,383,027	
2007	888,468,768	761,102,559	809,508,681	40,585,841	29,171,599	47,646,048	
2008	891,718,519	765,243,931	813,913,445	40,750,759	29,408,846	58,006,008	
2009	891,718,519	765,243,931	813,913,445	40,750,759	29,408,846	58,006,008	
2010 <sup>7</sup>	445,859,259	382,621,965	406,956,722	20,375,380	14,704,423	29,003,004	
<b>Total:</b>	<b>\$ 6,054,778,491</b>	<b>\$ 5,173,913,486</b>	<b>\$ 5,502,974,384</b>	<b>\$ 277,068,642</b>	<b>\$ 198,787,422</b>	<b>\$ 613,279,080</b>	

-- not applicable

Note: Dr. Foreman does not use actual data for his 1998 - 2001 and 2009 - 2010 damages estimates. For 1998 - 2000 and 2009 - 2010, Aetna ACAS data are not available. Dr. Foreman does not use the 2001 Aetna ACAS data because he believes it is incomplete. In Table 36, Dr. Foreman uses his 2002 damages estimates for 1998 through 2001, his 2008 damages estimates for 2009, and half of his 2008 damages estimates for 2010. Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

<sup>1</sup> This table corrects Dr. Foreman's dental class member definition by including all of his class member claim lines that relate to a dental procedure in the Aetna ACAS medical and dental data.

<sup>2</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>3</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>4</sup> The earliest subscriber class period begins on March 1, 2001 while the earliest provider class period begins on June 3, 2003.

<sup>5</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

<sup>6</sup> Represents March - December 2001 for my estimates in columns (b) - (f) and the entire year for Dr. Foreman's estimates in column (g).

<sup>7</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Dental Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

Appendix C-1.

**2) Breakout of damages estimates by assignment to subscribers vs. providers**

66. Another issue that affects Dr. Foreman's damages estimates relates to settlements between Aetna and provider plaintiffs in a related litigation, MDL-1334. I understand that as a legal matter, plaintiffs who were part of any of the classes in MDL-1334 may not be able to collect damages in the current Aetna UCR litigation.<sup>75</sup> I understand that there are two related settlements. The first settlement involves a class of physicians who provided services to Aetna plan members between August 4, 1990 and June 2, 2003.<sup>76</sup> The second settlement involves a class of dental providers who provided services to Aetna plan members between August 15, 1998 and April 21, 2004.<sup>77</sup>

67. I do not have the information required to identify which of the provider plaintiffs in the current Aetna UCR litigation are covered under the class definitions of these settlements. However, I can provide additional detail on the damages estimates presented in the previous section, showing damages estimates broken out by whether the claim lines are assigned to the provider or to the subscriber.

68. As shown in Exhibit 15, for medical procedures the class member claim lines assigned to providers during the class period are associated with \$111,483,591 in damages. This represents approximately 83.56% of total damages for the March 2001 – June 2010 time period.

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<sup>75</sup> Supplemental Final Approval Order, *In Re: Managed Care Litigation*, MDL No. 1334 (No. 00-MD-1334-MORENO), November 6, 2003, p. 4 and Order Approving Settlement, Certifying Class and Directing Entry of Final Judgment, *In Re: Managed Care Litigation*, MDL No. 1334 (No. 00-1334-MD-MORENO), July 2, 2004, pp. 7-8.

<sup>76</sup> Order Preliminarily Approving Proposed Settlement as to Plaintiffs and Defendants Aetna Inc. and Aetna-U.S. Healthcare Inc., *In Re: Managed Care Litigation*, MDL No. 1334 (No. 00-1334-MD-MORENO), June 2, 2003, p.2.

<sup>77</sup> Order Approving Settlement, Certifying Class and Directing Entry of Final Judgment, *In Re: Managed Care Litigation*, MDL No. 1334 (No. 00-1334-MD-MORENO), July 2, 2004, pp. 4, 6.

**Exhibit 15**  
**Medical Damages Calculations**  
**As Presented in Exhibit 13**  
**By Assignment**

**2001 - 2010**

Year of Service	Final Damages			Percentage of Total		
	Subscriber	Provider (Dollars)	Total	Subscriber	Provider	
	(a)	(b)	(c)	(d)	(e) (b)/(d)	(f) (c)/(d)
2001 <sup>1</sup>	\$ 1,494,151	\$ --	\$ 1,494,151	100.00 %	-- %	
2002	1,792,981	--	1,792,981	100.00	--	
2003	1,907,095	9,402,909	11,310,004	16.86	83.14	
2004	1,897,911	13,629,761	15,527,673	12.22	87.78	
2005	2,337,008	14,793,865	17,130,872	13.64	86.36	
2006	2,637,196	15,818,364	18,455,560	14.29	85.71	
2007	2,835,067	15,895,150	18,730,218	15.14	84.86	
2008	2,812,589	16,777,417	19,590,006	14.36	85.64	
2009	2,812,589	16,777,417	19,590,006	14.36	85.64	
2010 <sup>2</sup>	1,406,295	8,388,708	9,795,003	14.36	85.64	
<b>Total:</b>	<b>\$ 21,932,883</b>	<b>\$ 111,483,591</b>	<b>\$ 133,416,474</b>	<b>16.44 %</b>	<b>83.56 %</b>	

-- not applicable

Notes: Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

All limitations from Exhibit 13 apply to this analysis.

<sup>1</sup> Represents March - December 2001.

<sup>2</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Medical Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

Appendix C-1.

69. As shown in Exhibit 16, for dental procedures during the class period, the class member

claim lines assigned to providers are associated with \$174,160,369 in damages. This represents approximately 87.61% of the total damages for the March 2001 – June 2010 time period.

**Exhibit 16**  
**Dental Damages Calculations**  
**As Presented in Exhibit 14**  
**By Assignment**

**2001 - 2010**

Year of Service (a)	Final Damages			Percentage of Total		
	Subscriber (b)	Provider (Dollars) (c)	Total (d) (b)+(c)	Subscriber (Percent) (e) (b)/(d)	Provider (Percent) (f) (c)/(d)	
2001 <sup>1</sup>	\$ 1,675,127	\$ --	\$ 1,675,127	100.00 %	-- %	
2002	2,010,153	--	2,010,153	100.00	--	
2003	2,352,609	11,388,477	13,741,085	17.12	82.88	
2004	2,228,789	20,947,665	23,176,454	9.62	90.38	
2005	2,761,629	24,575,467	27,337,096	10.10	89.90	
2006	2,888,279	25,265,512	28,153,792	10.26	89.74	
2007	2,937,522	26,234,077	29,171,599	10.07	89.93	
2008	3,109,178	26,299,668	29,408,846	10.57	89.43	
2009	3,109,178	26,299,668	29,408,846	10.57	89.43	
2010 <sup>2</sup>	1,554,589	13,149,834	14,704,423	10.57	89.43	
<b>Total:</b>	<b>\$ 24,627,052</b>	<b>\$ 174,160,369</b>	<b>\$ 198,787,422</b>	<b>12.39 %</b>	<b>87.61 %</b>	

-- not applicable

Notes: Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

All limitations from Exhibit 14 apply to this analysis.

<sup>1</sup> Represents March - December 2001.

<sup>2</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Dental Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

Appendix C-1.

**3) “Accurate allowed” methodology damages estimates using alternative adjustment factors**

70. I understand that counsel has been working with another expert to recalculate the adjustment factors used in the damages calculations of Dr. Foreman's “accurate allowed” method. I was informed by counsel that the adjustment factors have been recalculated by that expert to

be 0.97% for medical procedures and 1.01% for dental procedures. I have applied the “accurate allowed” method as Dr. Foreman describes it in his report using these recalculated adjustment factors and Dr. Foreman’s class member claim lines, excluding inappropriate class member claim lines and class member claim lines with a date of service prior to 2002, aggregating damages by year of service, and extrapolating damages estimates consistent with Dr. Foreman’s methodology, while accounting for the different class periods. Using these alternative adjustment factors under the assumption that the methodology underlying Dr. Foreman’s “accurate allowed” method is appropriate for purposes of calculating damages, I calculate total damages to be \$14,709,575 for medical procedures, as shown in Exhibit 17. Similarly, I calculate total damages to be \$37,090,235 for dental procedures for this time period, as shown in Exhibit 18.

**Exhibit 17**  
**Medical Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 0.97%<sup>1</sup>**  
**For all Class Member Claim Lines with a Non-Dental Procedure Code<sup>2</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>3</sup>**  
**By Year of Service<sup>4</sup>**  
**For Claim Lines Assigned to Subscribers and Providers During their Respective Class Periods<sup>5</sup>**

**1998 - 2010**

Year of Service	Billed Charges	Allowed <sup>6</sup>	Preliminary Damages Estimate		Final Damages Estimate	
			Based on Dr. Foreman's Report Methodology	"Accurate Allowed"	Based on Dr. Foreman's Report Methodology	Presented in Table 36 of Dr. Foreman's Report
(a)	(b)	(c)	(d) (c)*1.0097	(e)	(f)	(g)
1998	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 63,165,002
1999	--	--	--	--	--	63,165,002
2000	--	--	--	--	--	63,165,002
2001 <sup>7</sup>	37,899,044	25,894,763	26,145,942	250,683	161,488	63,165,002
2002	45,478,853	31,073,715	31,375,130	300,820	193,786	63,165,002
2003	264,552,156	178,491,508	180,222,875	1,725,077	1,264,653	61,830,620
2004	385,140,557	259,200,430	261,714,674	2,505,193	1,732,464	59,595,027
2005	438,742,663	291,309,786	294,135,491	2,816,309	1,907,068	54,945,402
2006	486,212,189	319,872,630	322,975,395	3,093,543	2,049,045	58,332,611
2007	509,989,196	328,274,310	331,458,571	3,175,521	2,065,591	61,186,539
2008	550,645,513	341,267,607	344,577,903	3,301,263	2,134,192	67,892,148
2009	550,645,513	341,267,607	344,577,903	3,301,263	2,134,192	67,892,148
2010 <sup>8</sup>	275,322,756	170,633,804	172,288,952	1,650,632	1,067,096	33,946,074
<b>Total:</b>	<b>\$ 3,544,628,440</b>	<b>\$ 2,287,286,160</b>	<b>\$ 2,309,472,836</b>	<b>\$ 22,120,304</b>	<b>\$ 14,709,575</b>	<b>\$ 781,445,576</b>

-- not applicable

Note: Dr. Foreman does not use actual data for his 1998 - 2001 and 2009 - 2010 damages estimates. For 1998 - 2000 and 2009 - 2010, Aetna ACAS data are not available. Dr. Foreman does not use the 2001 Aetna ACAS data because he believes it is incomplete. In Table 36, Dr. Foreman uses his 2002 damages estimates for 1998 through 2001, his 2008 damages estimates for 2009, and half of his 2008 damages estimates for 2010. Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

<sup>1</sup> Represents a revised adjustment factor received from counsel that was created by another expert in this litigation.

<sup>2</sup> This table corrects Dr. Foreman's medical class member definition by including all of his class member claim lines that relate to a non-dental procedure in the Aetna ACAS medical and dental data.

<sup>3</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>4</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>5</sup> The earliest subscriber class period begins on March 1, 2001 while the earliest provider class period begins on June 3, 2003.

<sup>6</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

<sup>7</sup> Represents March - December 2001 for my estimates in columns (b) - (f) and the entire year for Dr. Foreman's estimates in column (g).

<sup>8</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Medical Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

**Exhibit 18**  
**Dental Damages Calculations**  
**Based on the Methodology Outlined in Dr. Foreman's Merits Report**  
**With a Recalculated Adjustment Factor of 1.01%<sup>1</sup>**  
**For all Class Member Claim Lines with a Dental Procedure Code<sup>2</sup>**  
**Subject to Additional Limitations to the Class Member Definition<sup>3</sup>**  
**By Year of Service<sup>4</sup>**  
**For Claim Lines Assigned to Subscribers and Providers During their Respective Class Periods<sup>5</sup>**

**1998 - 2010**

Year of Service	Billed Charges	Allowed <sup>6</sup>	Preliminary Damages Estimate		Based on Dr. Foreman's Report Methodology	Based on Dr. Foreman's Report Methodology	Presented in Table 40 of Dr. Foreman's Report
			"Accurate Allowed"	(Dollars)			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	
			(c)*1.0101				
1998	\$ --	\$ --	\$ --	\$ --	\$ --	\$ --	\$ 40,218,017
1999	--	--	--	--	--	--	40,218,017
2000	--	--	--	--	--	--	40,218,017
2001 <sup>7</sup>	52,344,629	41,532,176	41,951,651	416,744	292,531	40,218,017	
2002	62,813,555	49,838,612	50,341,982	500,093	351,037	40,218,017	
2003	417,409,820	353,598,202	357,169,544	3,535,847	2,540,953	47,572,081	
2004	708,356,233	605,331,666	611,445,516	6,048,777	4,291,133	56,522,445	
2005	835,764,853	714,616,778	721,834,408	7,135,857	5,088,018	58,050,374	
2006	860,324,337	734,783,665	742,204,980	7,335,658	5,268,732	57,383,027	
2007	888,468,768	761,102,559	768,789,694	7,597,263	5,466,005	47,646,048	
2008	891,718,519	765,243,931	772,972,895	7,635,476	5,516,730	58,006,008	
2009	891,718,519	765,243,931	772,972,895	7,635,476	5,516,730	58,006,008	
2010 <sup>8</sup>	445,859,259	382,621,965	386,486,447	3,817,738	2,758,365	29,003,004	
<b>Total:</b>	<b>\$ 6,054,778,491</b>	<b>\$ 5,173,913,486</b>	<b>\$ 5,226,170,012</b>	<b>\$ 51,658,929</b>	<b>\$ 37,090,235</b>	<b>\$ 613,279,080</b>	

-- not applicable

Note: Dr. Foreman does not use actual data for his 1998 - 2001 and 2009 - 2010 damages estimates. For 1998 - 2000 and 2009 - 2010, Aetna ACAS data are not available. Dr. Foreman does not use the 2001 Aetna ACAS data because he believes it is incomplete. In Table 40, Dr. Foreman uses his 2002 damages estimates for 1998 through 2001, his 2008 damages estimates for 2009, and half of his 2008 damages estimates for 2010. Consistent with Dr. Foreman's methodology, ten-twelfths of my 2002 figures are applied to 2001, my 2008 figures are applied to 2009, and six-twelfths of my 2008 figures are applied to 2010.

<sup>1</sup> Represents a revised adjustment factor received from counsel that was created by another expert in this litigation.

<sup>2</sup> This table corrects Dr. Foreman's dental class member definition by including all of his class member claim lines that relate to a dental procedure in the Aetna ACAS medical and dental data.

<sup>3</sup> Excluded from the class member definition are claim lines (a) with a billed charge less than or equal to the allowed amount, (b) where Aetna is the secondary payer in a commercial CoB situation, (c) that represent facility charges, (d) with a benefit level of OT, and (e) that were not accepted in the ACAS system.

<sup>4</sup> Class member claim lines are aggregated by year of service; claim lines with a date of service prior to 2002 are excluded.

<sup>5</sup> The earliest subscriber class period begins on March 1, 2001 while the earliest provider class period begins on June 3, 2003.

<sup>6</sup> Dr. Foreman uses the term "allowed" to represent the actual price field from Aetna's ACAS data.

<sup>7</sup> Represents March - December 2001 for my estimates in columns (b) - (f) and the entire year for Dr. Foreman's estimates in column (g).

<sup>8</sup> Represents January - June 2010.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.

Dr. Foreman's report corrections, October 31, 2010.

Foreman turnover files, *Aetna Dental Corrected.xlsx*, *Creating Aetna Damage Estimates v5.docx*, *Aetna2002 Medical Damaged Claims.csv* - *Aetna2008 Medical Damaged Claims.csv*, *Aetna2002 Dental Damaged Claims.csv* - *Aetna2008 Dental Damaged Claims.csv*.

Aetna ACAS claims data.

Class Action Complaint, July 1, 2009, ¶¶549-554, 562-563.

## **V. Other Issues Regarding the Reliability of Dr. Foreman's "Accurate Allowed" Damages Calculation**

### **A. Discrepancies between the results from the 300 CPT study and the results from the 350 CPT study raise questions as to the reliability of the 300 CPT study results and thus the appropriateness of using the 300 CPT Study as a basis for Dr. Foreman's damages calculations**

71. Dr. Foreman contends that "the results [from the 350 CPT study] are consistent with [and] fully supportive of the 300 CPT study."<sup>78</sup> He performs a verification analysis of the 300 CPT study using the 350 CPT study, wherein the results of the 350 CPT study are used to test the reliability of the 300 CPT study.<sup>79</sup> The underlying backup file to this verification analysis was lost by Dr. Foreman and therefore is not available,<sup>80</sup> so I am unable to comment directly on the verification analysis Dr. Foreman performed. However, a closer examination of the results reported for both the 300 and 350 CPT studies in his report as well as an analysis of the underlying data related to the 300 and 350 CPT studies reveal that the results are not consistent with each other. This raises questions with regard to the reliability of Dr. Foreman's methodology and his assertion that the 300 CPT study is sufficiently corroborated.

#### **1) Dr. Foreman's contention that his results from the 350 CPT study support his results from the 300 CPT study is contradicted by the numbers in the tables of his own report**

72. Dr. Foreman reports the weighted average percent differences between the percentile values that he calculates from the contributor data and the percentile values from the Ingenix PHCS

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<sup>78</sup> Foreman Merits Report, ¶347.

<sup>79</sup> Foreman Merits Report, ¶¶355-358.

<sup>80</sup> Deposition of Stephen Foreman, November 1, 2010, pp. 251-252.

database in Tables 20 and 30 for medical and surgical procedures in his 300 CPT study;<sup>81</sup> and in Table 25 for his 350 CPT study.

73. There are differences between the 300 CPT study and the 350 CPT study. Despite those differences, given that Dr. Foreman is using the 350 CPT study to verify the 300 CPT study, one would expect to see the same pattern in the weighted average percent differences by percentile and Ingenix PHCS cycle. I compare the results from the 300 CPT study tables that are limited to medical and surgical procedures so the figures are comparable to those in the 350 CPT study, which is already limited to medical and surgical procedures.<sup>82</sup>
74. However, when I compare the weighted average percent differences for the 80<sup>th</sup> percentile<sup>83</sup> for medical and surgical procedures in his 300 CPT study in Tables 20 and 30 to his 350 CPT study in Table 25 by Ingenix PHCS cycle, I find that the numbers are not consistent across the three tables.
75. In Exhibit 19 I show Dr. Foreman's weighted average percent difference values for the 80<sup>th</sup> percentile by Ingenix PHCS cycle, as they appear in Tables 20 and 30 for the 300 CPT study and Table 25 for the 350 CPT study.

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<sup>81</sup> Dr. Foreman uses two different weighting methodologies to create the average percent difference figures for the 300 CPT study for medical and surgical procedures. Dr. Foreman does not explain why he uses two different methodologies (resulting in two different sets of numbers). By contrast, the weighted average percent difference figures for the 300 CPT study for dental procedures are consistent across Tables 21 and 32.

<sup>82</sup> Foreman Merits Report, ¶337.

<sup>83</sup> I show the results for the 90th percentile in **Appendix D-1**.

**Exhibit 19**  
**Comparison of Weighted Average Percent Differences**  
**For the 80th Percentile**  
**From Dr. Foreman's 300 CPT Study and 350 CPT Study**  
**For Medical and Surgical Procedures**

**2006 - 2008**

<b>Contributor Data Year<sup>1</sup></b>	<b>Ingenix PHCS Cycle</b>	<b>300 CPT Study<sup>2</sup></b>		<b>350 CPT Study</b>
		<b>Table 20</b>	<b>Table 30</b>	<b>Table 25</b>
----- (Percent)-----				
(a)	(b)	(c)	(d)	(e)
2006	2005-2	9.2 %	8.1 %	19.9 %
2006	2006-1	7.4	6.6	16.6
2007	2006-2	14.8	13.7	12.7
2007	2007-1	15.0	12.9	10.8
2008	2007-2	23.3	10.6	33.2
2008	2008-1	15.6	8.6	35.7

<sup>1</sup> In his 350 CPT study, Dr. Foreman calculates percentile values using six-month intervals of contributor data for 2006 and 2008. The full calendar year is used in his 350 CPT study for 2007 and for all years of his 300 CPT study.

<sup>2</sup> Dr. Foreman does not explain why he calculates two separate sets of numbers for the 300 CPT study.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010: Tables 20, 25, and 30.

76. I find that, for the comparisons where Dr. Foreman uses 2006 contributor data, his weighted average percent differences from the 350 CPT study exceed the corresponding weighted average percent differences from the 300 CPT study by more than 100 percent, whether I use the figures from Table 20 or Table 30.
77. For the comparisons where he uses 2007 contributor data, Dr. Foreman's weighted average percent differences from the 350 CPT study drop noticeably compared to the figures from 2006. By contrast, his 2007 weighted average percent differences from the 300 CPT study

rise noticeably compared to the figures from 2006. Though his weighted average percent differences for the comparisons using 2006 contributor data from the 350 CPT study are more than twice as large as the corresponding figures from the 300 CPT study tables, the situation reverses in 2007, and the weighted average percent differences for the comparisons using 2007 contributor data from the 300 CPT study in either table are greater than the corresponding figures from the 350 CPT study.

78. For the comparisons where Dr. Foreman uses 2008 contributor data, his weighted average percent differences from the 350 CPT study increase dramatically compared to the figures from 2007, by a factor between 2.6 and 3.3. By comparison, his weighted average percent differences from the 300 CPT study rise much less in Table 20 and even fall noticeably in Table 30.<sup>84</sup> Though his weighted average percent differences for the comparisons using 2007 contributor data from either 300 CPT study table are greater than the corresponding figures from the 350 CPT study, the situation reverses in 2008 yet again, and the weighted average percent differences for the comparisons using 2008 contributor data for the 350 CPT study are greater than the corresponding figures from the 300 CPT study tables.
79. The basis for Dr. Foreman's assertion that the results from the 350 CPT study support his results from the 300 CPT study is unclear. A detailed comparison between the results from his 300 and 350 CPT studies shows that not only does the order of magnitude of the results differ greatly between the two studies, but the alleged bias moves in different directions over time depending on whether I look at the results from the 300 CPT study or the results from the 350 CPT study. In addition, the fact that Dr. Foreman's two studies result in two

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<sup>84</sup> Given that Dr. Foreman is relying on the same 300 CPT study data in both calculations, it is unclear why the figures would move in different directions across years between Tables 20 and 30.

sets of percent differences, both greater than zero, does not prove that one study validates the other.

2) **Dr. Foreman's 2007 contributor data percentile values from his 300 CPT study frequently differ from those in his 350 CPT study, contradicting his contention that the results from his 350 CPT study are consistent with those from his 300 CPT study**

80. If Dr. Foreman's statement that his results from the 350 CPT study are consistent with the results from his 300 CPT study is to be credible, his method of calculating the contributor data percentile values across the two studies should be consistent. He states that he would expect to see percentile values that are the same or at least close across the two studies for 2007<sup>85</sup> because he uses the same time period for his comparisons of percentile values in the 300 and 350 CPT studies for this year.<sup>86</sup> However, the 2007 percentile values calculated by Dr. Foreman in the two studies are quite different, which contradicts his assertion that the results from one study support the results from the other.

81. There are 51,743 procedure code-geozip combinations for which Dr. Foreman calculates 2007 contributor data percentile values in both the 300 CPT study and the 350 CPT study. However, as shown in Exhibit 20, when I compare the 80<sup>th</sup> percentile values<sup>87</sup> for those combinations, I find that they are identical only 29% of the time. For a majority of the combinations, 71%, the two values differ. Exhibit 20 shows that for 25% of the combinations, the 80<sup>th</sup> percentile value from the 350 CPT study exceeds the 80<sup>th</sup> percentile value from the 300 CPT study for the same procedure code-geozip combination. For those observations, the mean difference between the value in the 350 CPT study and the value in

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<sup>85</sup> Deposition of Stephen Foreman, November 1, 2010, p. 262.

<sup>86</sup> Dr. Foreman always calculates percentile values for the full calendar year in his 300 CPT study. For his 350 CPT study, he calculates percentile values for six-month intervals in 2006 and 2008, and for the full calendar year in 2007. See Foreman Merits Report, ¶340.

<sup>87</sup> I show the results for the 90<sup>th</sup> percentile in **Appendix D-2**.

the 300 CPT study is \$50 and the median difference is \$13. This creates a mean percent difference of 40%<sup>88</sup> and a median percent difference of 17%.

**Exhibit 20**  
**Comparison of 80th Percentile Values Based on the Contributor Data**  
**For Procedure Code-Geozip Combinations Included in the 300 CPT and 350 CPT Studies**

**2007**

<b>Comparison</b>	<b>Claim Lines</b>		<b>Mean Difference</b>		<b>Median Difference</b>	
	<b>(a)</b> <b>(b)</b>	<b>(c)</b> <b>(Percent)</b>	<b>(d)</b> <b>(Dollars)</b>	<b>(e)</b> <b>(Percent)</b>	<b>(f)</b> <b>(Dollars)</b>	<b>(g)</b> <b>(Percent)</b>
350 CPT value > 300 CPT value	12,952	25 %	\$ 50	40 %	\$ 13	17 %
350 CPT value = 300 CPT value	14,910	29	0	0	0	0
350 CPT value < 300 CPT value	23,881	46	31	13	10	9

Notes: Analysis includes 51,743 procedure code-geozip combinations that are included in the 300 CPT and 350 CPT studies.

Comparison is based on percentile values that are rounded to the nearest dollar.

The percent difference calculations reflect the absolute value of the difference between the rounded 300 CPT value and the rounded 350 CPT value divided by the rounded 300 CPT value.

Sources: Expert Report of Stephen Foreman, Ph.D., J.D., M.P.A. (Corrected), August 9, 2010.  
 Foreman turnover files, *contrib\_2007\_percentiles.csv* and *Comp 300 Ing\_07\_02 Rev.xlsx*.

82. For 46% of the combinations, the 80<sup>th</sup> percentile value from the 350 CPT study is less than the 80<sup>th</sup> percentile value from the 300 CPT study. For those procedure code-geozip combinations, the mean difference between the value in the 350 CPT study and the value in the 300 CPT study is \$31, and the median difference is \$10. This creates a mean percent difference of 13%<sup>89</sup> and a median percent difference of 9%.

83. These results likely explain the different results for the two studies that I show in Exhibit 19. The figures in Exhibit 19 are unsurprising because the 80<sup>th</sup> percentile values for 2007 in the

<sup>88</sup> The percent difference is based on the 300 CPT study 80<sup>th</sup> percentile value. In this case, the mean percent difference indicates that, on average (unweighted), the 350 CPT study 80<sup>th</sup> percentile value *exceeds* the 300 CPT study 80<sup>th</sup> percentile value by this percentage.

<sup>89</sup> Again, the percent difference is based on the 300 CPT study 80<sup>th</sup> percentile value. In this case, the mean percent difference indicates that, on average (unweighted), the 350 CPT study 80<sup>th</sup> percentile value is *lower* than the 300 CPT study 80<sup>th</sup> percentile value by this percentage.

300 and 350 CPT studies for the same procedure code-geozip combination differ a majority of the time, as shown in Exhibit 20. These results are inconsistent with Dr. Foreman's assertion that "the results [from the 350 CPT study] are consistent with [and] fully supportive of the 300 CPT study."<sup>90</sup>

**B. The strict 255 data point cutoff used by Dr. Foreman to decide whether there are enough data points to calculate the percentile values has no scientific basis**

84. As discussed in section IV.A, Dr. Foreman uses a cutoff of 255 occurrences in the Ingenix PHCS database associated with the procedure code-geozip combination of the class member claim line to determine when to use the "billed charge" as the "but-for" UCR rate in his damages calculation using his "accurate allowed" methodology. In section II, I discussed why there is no economic basis for using the billed charge as a proxy for the UCR rate. Even if the billed charge could be used as a proxy, Dr. Foreman provides no scientific basis for choosing 255 occurrences as the cutoff.
85. Dr. Foreman asserts that the minimum number of data points "required for reporting percentiles with confidence" is 254.<sup>91</sup> He contends that percentile values calculated based on fewer data points than this threshold would not be reliable.<sup>92</sup> But, Dr. Foreman acknowledges that the 254 occurrences threshold is based on several assumptions, one of which is that the true population of billed charges for each procedure code-geozip-Ingenix cycle combination is exactly 300.<sup>93</sup>
86. For procedure code-geozip-Ingenix cycle combinations where the true population of billed charges is greater than 300, more than 254 occurrences would be required in the Ingenix

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<sup>90</sup> Foreman Merits Report, ¶347.

<sup>91</sup> Foreman Merits Report, ¶¶245, 297. Note that while Dr. Foreman indicates that 254 should be the cutoff based on an assumption of a population of 300, the cutoff that he actually applies in his analysis is 255.

<sup>92</sup> See discussions in Foreman Merits Report, sections V.D.4 and VI.E.

<sup>93</sup> Foreman Merits Report, ¶245.

PHCS database according to Dr. Foreman's methodology. For procedure code-geozip-Ingenix cycle combinations where the true population of billed charges is lower than 299, fewer than 254 occurrences would be required.

87. For example, if the true population of charges is only 20, Dr. Foreman's threshold could not be met by Ingenix, even if Ingenix had collected all billed charges related to a procedure code-geozip combination for that cycle, and thus had the population of billed charges.
88. Conversely, if the true population of billed charges is 200,000, but the number of occurrences in the Ingenix PHCS database is 254, Dr. Foreman's threshold would be met even though the minimum number of observations required according to Dr. Foreman's methodology would be much greater.<sup>94</sup>
89. In addition, Dr. Foreman listed a different threshold value in his affirmative class certification report. He listed a cutoff value of 80 at the time, which is much lower than the 255 cutoff he proposes in his current report.<sup>95</sup> Dr. Foreman does not provide a valid scientific basis for either of these two cutoffs, nor does he explain why the cutoff increased from one report to another.
90. Last, Dr. Foreman has not provided any analysis to show that a UCR rate calculated based on an "insufficient" number of occurrences would necessarily be biased downward, such that there would be any injury or damages resulting from Ingenix's calculation of percentile values based on an "insufficient" number of occurrences.

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<sup>94</sup> Using the online calculator referenced by Dr. Foreman in his merits report, the required number of observations would be 1,654.

<sup>95</sup> Foreman Affirmative Class Cert Report, ¶¶130–131.

## **VI. Dr. Foreman's Damages Calculation with Regard to "Representativeness"**

91. Dr. Foreman presents a damages amount over and above the damages calculated from his "accurate allowed" adjustment discussed in section III. This additional damages amount is based on his assertion that the contributor data are not representative of the overall population of billed charges and are biased downward (i.e., over and above any bias that he asserts might arise from any other factors that might affect Ingenix PHCS data). But, Dr. Foreman states that "[b]ecause the entire population of billed charges is not known there is no way to scientifically prove or disprove whether the Ingenix billed charges are representative of all billed charges," and that "[t]he hypothesis that the Ingenix percentiles represent UCR can neither be proven nor disproven."<sup>96</sup> Notwithstanding his own conclusion that a representativeness bias cannot be "scientifically proven," he asserts that this representativeness bias exists.
92. Dr. Foreman compares the mean billed charge for all of the 2007 contributor data to the mean billed charge for the 2007 contributor data excluding charges from Aetna and CIGNA. He finds that the mean across all of the 2007 Ingenix contributor data is 12% greater than the mean that excludes charges from Aetna and CIGNA. The percent difference drops to 6.6% when he limits his analysis to New York State. He alleges that the difference between these respective two means can be attributed to a representativeness bias.<sup>97</sup>
93. Despite Dr. Foreman's statement that there is no way to scientifically prove that there is a representativeness bias, he concludes that "empirical analysis of the contributor data

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<sup>96</sup> Foreman Merits Report, ¶163.

<sup>97</sup> See discussions in Foreman Merits Report, sections V.D.1 and VI.A.

establish [sic] that the contributor data do not appear to be representative at all.”<sup>98</sup> Thus, he ascribes differences in the mean billed charge that arise from the exclusion of charges from Aetna and CIGNA to the purported existence of a representativeness bias. However, Dr. Foreman’s method of comparing charges from contributors other than Aetna and CIGNA to charges from Aetna and CIGNA suffers from a number of conceptual problems.

94. First, Dr. Foreman’s argument for asserting that there is a representative bias is circular. Dr. Foreman asserts that “[l]arge national insurers generally pay physicians lower amounts than other health insurers because they have bargaining power.”<sup>99</sup> He then shows that the portion of the Ingenix contributor data from Aetna and CIGNA each has a mean lower than the overall mean of the contributor data. He then proceeds to show that if one removes Aetna and CIGNA, whose values are below the mean, from the calculation of the overall mean of the contributor data, the overall mean goes up – proving only that Aetna and CIGNA are below the mean. And the fact that they are below the mean appears to only be reflective of an industry fact asserted at the outset, and nothing else – that large national insurers “pay physicians lower amounts.” But even that statement is contradicted by Dr. Foreman. He shows that United’s mean billed charge is above the overall mean in the contributor data, but this fact does not seem to lead him to conclude that the contributor data are biased *upward*.<sup>100</sup> Dr. Foreman has not explained why an appropriate calculation of the mean

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<sup>98</sup> Foreman Merits Report, ¶163.

<sup>99</sup> Foreman Merits Report, ¶156. Although Dr. Foreman alludes to issues with regard to “profiling” of data by Aetna (Foreman Merits Report, ¶89), he provides no empirical analysis of this issue, nor does he connect this issue to his hypothesis test regarding whether the contributor data are representative.

<sup>100</sup> Foreman Merits Report, Table 2.

billed charge should include one large contributor (United) while excluding two other large contributors (Aetna and CIGNA).<sup>101</sup>

95. Moreover, the above argument is not consistent with the data underlying the Ingenix PHCS database. Dr. Foreman asserts that Aetna and CIGNA pay physicians lower amounts than other health insurers. The amounts that Aetna and CIGNA pay physicians would be reflected in the allowed and paid amounts. However, the Ingenix PHCS database percentile values at issue are based on the billed charges submitted by providers. Thus, even if it were true that Aetna and CIGNA use some form of market power to allow and pay lower amounts, that would not affect the Ingenix PHCS database percentile values at issue which are based on billed charges.
96. Second, Dr. Foreman contends that taking Aetna and CIGNA out of the calculation of the overall mean of the contributor data and then calculating a new overall mean, implies the new mean is somehow stripped of the representative bias and is now somehow “correct.” But the exact opposite is true. Dr. Foreman has removed two insurers that are of a particular type (tending to pay “lower amounts,” according to Dr. Foreman), and thus should be in the sample in order for that sample to be representative of the population. Dr. Foreman’s test only proves that one can change the mean of the contributor data when certain large contributors are removed from the data. As I have explained above, removing such data contributors could move the overall mean in either direction.
97. Third, the UCR rate is based on one of the upper percentile values in Ingenix’s PHCS database, not the mean. Dr. Foreman provides no argument to conclude that the results of a

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<sup>101</sup> At his deposition Dr. Foreman testified that United, as a large insurer, should be grouped with Aetna and CIGNA. However, he also stated that did not perform a representativeness analysis where he removed United along with Aetna and CIGNA from the contributor data. See Deposition of Stephen Foreman, November 2, 2010, pp. 398-399.

comparison of these values based on the mean can be used to generalize to the results of a comparison based on the upper percentile values. Indeed, Dr. Foreman asserts in his report that the mean is more greatly affected than the median and other percentiles by extreme values or “outliers.”<sup>102</sup>

98. Fourth, because Dr. Foreman’s 12% figure for representativeness bias is based on a calculation that aggregates billed charges across all procedures and all geographic areas in 2007, the difference may also reflect different insurance companies having different billed charge compositions along dimensions such as the procedure and the geographic area. For example, Aetna and CIGNA might have relatively more inexpensive procedures among its charges; or they might have a greater presence in geographic areas where providers’ charges are lower.
99. Similarly, the 6.6% figure is based on a calculation that aggregates billed charges across all procedures in New York state in 2007, such that the difference might again reflect different insurance companies having different compositions of procedures in addition to varying presences in different parts of the state.
100. Even if a comparison based on percentile values of billed charges at the procedure code-geozip-year level is performed and the results show that the upper percentile values of billed charges associated with Aetna and CIGNA are lower than those associated with other contributors, that would not mean that any representativeness bias exists.
101. Dr. Foreman adds an amount of \$697,362,328 in damages that he calculates in his “accurate allowed” model due to an alleged representativeness bias.<sup>103</sup> This amount appears to be simply 50% of the damages he estimates using his “accurate allowed” methodology. But Dr.

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<sup>102</sup> Foreman Merits Report, ¶167.

<sup>103</sup> Foreman Merits Report, Table 42 (Corrected).

Foreman provides no support for why that would be the correct calculation even if a representativeness bias existed. Given that Dr. Foreman believes that the representativeness issue cannot be resolved scientifically, and that he has at most proven that Aetna's billed charge data are an important component of the contributor data, I conclude that Dr. Foreman has not provided any basis for showing damages with regard to "representativeness."

## **VII. Dr. Foreman's Damages Calculation with Regard to the Association Plaintiffs**

102. Dr. Foreman contends that "plaintiff medical associations and societies have expended time and incurred other expenses dealing with the out of network payment issues underlying this litigation."<sup>104</sup> Dr. Foreman estimates the total association damages to be almost \$3.4 million, aggregated across the American Medical Association (AMA), the American Podiatric Medical Association (APMA), the Connecticut State Medical Society (CSMS), the Florida Medical Association (FMA), the Medical Association of Georgia (MAG), the Medical Society of New Jersey (MSNJ), the Medical Society of the State of New York (MSSNY), the New Jersey Psychological Association (NJPA), the North Carolina Medical Society (NCMS), and the Texas Medical Association (TMA).<sup>105</sup>

103. Dr. Foreman states in his deposition that his estimate of damages to the association plaintiffs is based solely on information provided by counsel in one spreadsheet,<sup>106</sup> and that he is "relying on the accuracy of the information [in the spreadsheet] received by counsel from the associations."<sup>107</sup> Dr. Foreman describes this information collection process as an

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<sup>104</sup> Foreman Merits Report, ¶457.

<sup>105</sup> Foreman Merits Report, ¶461 and Table 41. Foreman mistakenly refers to the Texas Medical Association as the Texas Medical Society.

<sup>106</sup> Deposition of Stephen Foreman, November 2, 2010, p. 521.

<sup>107</sup> Deposition of Stephen Foreman, November 2, 2010, pp. 523-524.

“informal survey.”<sup>108</sup> However, this “informal survey” is severely flawed, rendering his damages estimate unreliable.

104. First, Dr. Foreman has not provided a framework for the but-for world—the world in which employees of the plaintiff medical associations and societies would not have spent time dealing with out-of-network payment issues underlying this litigation. Plaintiffs are damaged only to the extent that they would have paid their employees less in the but-for world than in the actual world, or to the extent that the employees would have undertaken valuable alternative activities in the but-for world. However, Dr. Foreman has failed to demonstrate that the medical associations and societies would have paid their employees any less in the but-for world. Similarly, Dr. Foreman has failed to identify valuable alternative activities that the employees would have undertaken. Without an appropriate determination of what would have happened in the but-for world, Dr. Foreman has no basis to calculate damages.

105. Dr. Foreman’s “informal survey” shows at most that some employees spent some fraction of their time dealing with out-of-network payment issues. The “informal survey” does not indicate what would have happened in the but-for world—whether the associations would have employed fewer workers or whether the associations would have had lower expenses with regard to wages, salaries and benefits for the relevant employees. Among the ten plaintiff medical associations and societies that seek monetary damages, only one association (NJPA) has a representative (Dr. Barry Helfmann) who testified that the association incurred extra expenses because it had to hire additional employees and pay more to existing employees as a result of having to deal with issues in this litigation. Dr.

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<sup>108</sup> Foreman Merits Report, ¶458.

Helfmann stated that “a temp person was put on for a period of time as needed because the resources of the Association [were] being diverted to handle some of the other matters probably 10 or 12 hours a week for a three-month period of time.”<sup>109</sup> However, it is not clear if this was solely attributable to issues underlying this litigation, as opposed to being at least in part attributable to other matters. Dr. Helfmann also testified that his salary increased in late 2009 or the beginning of 2010 by “[t]hirteen to 14,000 per year for all the legal and PR activities,” as a result of the UCR litigations and time spent on other lawsuits, and that he could not break down the percentage between the UCR litigations at issue and other lawsuits.<sup>110</sup> He further explained that the salary increase is due to the association needing him to “deal with the legal issues that [the association is] facing.”<sup>111</sup> Because no supporting documentation for Dr. Helfmann’s assertions has been produced, the alleged causal relationship between the extra expenses incurred by the NJPA and the issues underlying this litigation cannot be evaluated. Also, without supporting documentation, the amount of extra expenses specifically attributable to out-of-network payment issues underlying this litigation as opposed to other causes cannot be reliably calculated.

106. Second, Dr. Foreman’s “informal survey,” which provides the basis for his association damages estimate, is not scientifically valid. Contrary to standard survey practice,<sup>112</sup> Dr. Foreman has not provided any information regarding the design and execution of the survey.

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<sup>109</sup> Deposition of Barry Helfmann (NJPA), July 28, 2010, p. 94.

<sup>110</sup> Deposition of Barry Helfmann (NJPA), July 28, 2010, p. 63.

<sup>111</sup> Deposition of Barry Helfmann (NJPA), July 28, 2010, p. 63.

<sup>112</sup> A reference published by the Federal Judicial Center/National Academy of Sciences states that “[t]o make it possible for the court and the opposing party to closely scrutinize the survey so that its relevance, objectivity, and representativeness can be evaluated, the party proposing to offer the survey as evidence should describe in detail the design and execution of the survey.” See Shari S. Diamond, “Reference Guide on Survey Research,” *Reference Manual on Scientific Evidence*, Washington, DC, Federal Judicial Center/National Academy of Sciences, 1994, p. 232.

For example, Dr. Foreman provides no information on what questions were posed in the “informal survey,” whether the questions were presented verbally or in writing, who designed the questions, who posed the questions to the respondents, how the individual respondents were selected, what instructions were given to the respondents, and how the responses were evaluated. He provides no survey forms, notes, or other supporting documentation relating to this “informal survey.”

107. Survey literature affirms the importance of following specific procedures to design and execute a survey in order for the survey results to be reliable.<sup>113</sup> Serious biases can undermine the results of a survey that is not designed and conducted properly. For example, a widely cited reference guide on surveys advises that “[i]f the crucial question is sufficiently ambiguous or unclear, it may be the basis for rejecting the survey.”<sup>114</sup> Without documentation from the plaintiffs regarding the survey process—for example, what questions were posed to respondents—I am not able to verify whether generally accepted survey procedures were followed. Dr. Foreman did not design or conduct the survey himself, nor does he know how the survey was conducted,<sup>115</sup> so it is unclear how or whether he even verified if generally accepted survey procedures were followed.

108. One generally accepted principle when conducting a survey is that “the attorney should have no part in carrying out the survey,”<sup>116</sup> which is clearly violated in Dr. Foreman’s “informal survey.” In addition, respondents should not be aware of the purpose of the survey, in order

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<sup>113</sup> Shari S. Diamond, “Reference Guide on Survey Research,” *Reference Manual on Scientific Evidence*, Washington, DC, Federal Judicial Center/National Academy of Sciences, 1994.

<sup>114</sup> Shari S. Diamond, “Reference Guide on Survey Research,” *Reference Manual on Scientific Evidence*, Washington, DC, Federal Judicial Center/National Academy of Sciences, 1994, p. 248.

<sup>115</sup> Deposition of Stephen Foreman, November 2, 2010, pp. 518-521.

<sup>116</sup> Shari S. Diamond, “Reference Guide on Survey Research,” *Reference Manual on Scientific Evidence*, Washington, DC, Federal Judicial Center/National Academy of Sciences, 1994, p. 237.

to avoid the potential bias that may arise from the responses.<sup>117</sup> Given that the relevant individuals in the associations were aware of this litigation and their associations' interest in the litigation, it is possible that there might be an upward bias in their estimates of time and money spent dealing with issues related to this litigation.<sup>118</sup> Without documentation from Dr. Foreman regarding how, when, and by whom his "informal survey" was administered, I am unable to discern whether Dr. Foreman appropriately followed this basic survey principle, hence making it impossible to discern whether the bias discussed here was introduced.

109. Third, the "informal survey" that Dr. Foreman relies upon most likely requires survey respondents to recollect the time spent on certain tasks over the course of a number of years dating back to 2004. This raises the obvious question about the accuracy of the estimates provided by the survey respondents. Indeed, according to the academic literature, there could be significant overestimation in self-reporting of work hours based on recollection, and the overestimation bias increases as time elapses.<sup>119</sup> According to the literature, one possible reason for such overestimation bias is that "respondents appear to recollect days when the activity asked about was especially prominent, and treat that as an average day."<sup>120</sup>

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<sup>117</sup> See Robert M. Groves, Eleanor Singer, and Amy Corning, "Leverage-Saliency Theory of Survey Participation," *Public Opinion Quarterly*, Vol. 64, no. 3, Autumn 2000, p. 301. ("how potential influences manifest their effects is dependent upon what happens when the survey request is made. The achieved influence of a particular feature is a function of how important it is to the potential respondent, whether its influence is positive or negative, and how salient it becomes to the sample person during the presentation of the survey request.")

<sup>118</sup> Deposition of Catherine Hanson (AMA), June 21, 2010, pp. 151-153; Deposition of Leonard Nelson (AMA), June 22, 2010, pp. 228-230; Deposition of Donald Palmisano (MAG), July 15, 2010, p. 201; Deposition of Stephen Keene (NCMS), July 21, 2010, p. 243; Deposition of Lawrence Downs (MSN), July 22, 2010, pp. 190-191; Deposition of Jeff Scott (FMA), July 27, 2010, pp. 122-123; Deposition of Barry Helfmann (NJPA), July 28, 2010, p. 179; Deposition of Michael J. King, July 29, 2010, Exhibit 5.

<sup>119</sup> Greg J. Duncan and Daniel H. Hill, "An Investigation of the Extent and Consequences of Measurement Error in Labor-economic Survey Data," *Journal of Labor Economics*, Vol. 3, no. 4, October 1985, pp. 508 and 517.

<sup>120</sup> F. Thomas Juster and Frank P. Stafford, "The Allocation of Time: Empirical Findings, Behavioral Models, and Problems of Measurement," *Journal of Economic Literature*, vol. XXIX, June 1991, p. 482.

Other factors such as respondents' interpretation of the questions and distinctiveness of the activities in question compared with other activities also contribute to the measurement error in a survey based on respondents' memory of past events.<sup>121</sup>

110. Lastly, even if taken at face value, Dr. Foreman's calculation of association damages suffers from various unsupported conclusions and mathematical errors.

- Dr. Foreman "estimate[s] salary and benefits at the executive vice president level of \$400,000 per year, general counsel and senior vice president at \$200,000 per year, vice president at \$150,000 per year, directors at \$100,000 per year and staff at \$35,000 per year."<sup>122</sup> There is no indication of how Dr. Foreman derived these salary estimates and why these estimates are applicable to the individual employees across all of the medical associations and societies and across all of the years. Dr. Foreman does not explain why he chose to estimate the salary amount as opposed to obtaining the actual salary amounts for each individual employee in each year.<sup>123</sup> Actual salaries for individual employees would likely vary based on numerous factors, such as affiliation, geographic location, and tenure of employee, even if they are of the same title. It is not clear why Dr. Foreman ignores these factors in his methodology.

- Dr. Foreman estimates the damages to the CSMS to be \$410,000 but does not allocate this amount over time. According to Dr. Foreman's turnover, \$229,000 is for staff, \$20,000 is for consultants and expenses, \$111,000 is for outside counsel time and

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<sup>121</sup> Liris Niemi, "Systematic Error in Behavioural Measurement: Comparing Results from Interview and Time Budget Studies," *Social Indicator Research*, vol. 30, November 1993, pp. 231, 236, 241-242.

<sup>122</sup> Foreman Merits Report, ¶459.

<sup>123</sup> For example, in contrast with Dr. Foreman's estimate of the annual salary of \$100,000 for directors, Dr. Helfmann testified that his annual salary, as the director of professional affairs of NJPA, was \$42,000, the annual salary of the executive director of NJPA was \$115,000 or \$110,000, and the annual salary of an interim executive director was \$90,000. See Deposition of Barry Helfmann (NJPA), July 28, 2010, pp. 54-55, 137-138.

expenses, and \$50,000 is for outside lobbyists. The backup spreadsheet also lists the time spent—3% for receptionists, 3% for membership staff, 10% for public policy staff, and 10% for executive vice presidents. However, Dr. Foreman does not indicate how many people are in each category and to which years these estimates of time spent apply, nor does he connect the alleged time spent with the corresponding expenses.

- Dr. Foreman estimates the damages to the FMA to be \$9,750, or \$1,500 per year. This is based on “five hours of a director’s time per year,”<sup>124</sup> which is about 0.27% of the total working hours per year.<sup>125</sup> Given the annual salary and benefits of a director, which is estimated by Dr. Foreman to be \$100,000 per year, 0.27% of that amount would be \$270, instead of \$1,500.
- Dr. Foreman estimates the damages to the MAG to be \$15,150. This is based on “50 hours total time from its director and three hours total time from a staffer.”<sup>126</sup> Thus, the percentage of time spent on issues related to this litigation is about 2.72% of the total working hours per year for the director and 0.16% of the total working hours per year for the staff.<sup>127</sup> Given the annual salary and benefits of a director, which is estimated by Dr. Foreman to be \$100,000 per year, 2.72% of that amount would be \$2,720. Given the annual salary and benefits of a staff member, which is estimated by Dr. Foreman to be \$35,000 per year, 0.16% of that amount would be \$56. Thus, the total damages amount would be \$2,776 instead of \$15,150.

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<sup>124</sup> Foreman Merits Report, ¶458.d.

<sup>125</sup> The estimate is based on an assumption of 46 working weeks per calendar year with 40 working hours per week.

<sup>126</sup> Foreman Merits Report, ¶458.e.

<sup>127</sup> The estimates are based on an assumption of 46 working weeks per calendar year with 40 working hours per week.

111. Based on the above arguments, Dr. Foreman's estimates of association damages are invalid because they are not based on a scientific methodology and are not factually supported.

### **VIII. Dr. Siskin's Merits Report**

112. Dr. Siskin's report in this phase of the litigation largely corresponds to his reports in the class certification phase of the litigation. For the most part, I responded to the arguments he makes in my own class certification reports.<sup>128</sup> In this section, I briefly summarize the issues that I have already addressed, and I also address one new issue that Dr. Siskin raises in his current report.

113. Dr. Siskin alleges that it is not appropriate to use the Ingenix database in determining the UCR rate, because the Ingenix database does "not allow one to consider and assess the core concepts and factors which must be considered in determining R&C."<sup>129</sup> As I discussed in my class certification reports and with regard to Dr. Foreman (see section III above), accounting for these various factors would not necessarily result in a "but-for" UCR rate that is lower than the actual UCR rate. The only example based on actual (as opposed to hypothetical) charges in Dr. Siskin's reports that attempts to address this issue is a "survey" of periodontists' charges conducted by a CIGNA subscriber named Jill Faddis in 2001.<sup>130</sup> As I discussed in my class certification report, it is not appropriate to leap from this one example to the generalized conclusion that the allegation would apply to all other class member claim lines.<sup>131</sup>

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<sup>128</sup> Joskow Affirmative Class Cert Report and Joskow Responsive Class Cert Report.

<sup>129</sup> Siskin Merits Report, p. 6. The term "R&C" was used interchangeably with UCR.

<sup>130</sup> Siskin Merits Report, pp. 29-32. The exact same example was discussed in Siskin Affirmative Class Cert Report pp. 24-26.

<sup>131</sup> Joskow Responsive Class Cert Report, ¶25.

114. Although Dr. Siskin refers to Aetna's "pre-scrubbing" of data, he has not provided any additional evidence or analysis in his merits report regarding Aetna's alleged "pre-scrubbing" of data submitted to Ingenix.<sup>132</sup> He simply states that he is waiting for discovery to learn more regarding these issues. I presented analyses on Aetna's profiling rules in both my affirmative class certification report as well as in my responsive class certification report.

115. In my affirmative class certification report, I analyzed the alleged 150%/50% rules using Aetna's ACAS data and showed that the 80<sup>th</sup> percentile value of Aetna's contribution data to Ingenix could increase, decrease, or stay the same. In scenarios where no charges are removed from the Aetna contribution data by applying these profiling rules as shown above, there would be no impact on the final Ingenix percentile values for those CPT-geozip combinations. In other scenarios, where there are some charges removed from the Aetna contribution data, the final effect on the Ingenix percentiles is indeterminate.

116. In my responsive class certification report, I analyzed Aetna's ACAS data to test whether the two Aetna profiling guidelines that Dr. Siskin referred to in his affirmative class certification report regarding auto-adjudicated claims ("Charges that exceed prevailing will be reduced and not profiled with action codes 617 or 657. Charges that exceed prevailing but are within plan prevailing fee liberalization will be accepted but not profiled with action code 605"<sup>133</sup>) were actually applied. My finding was that few auto-adjudicated claim lines where the billed charge exceeds the prevailing fee contain the 6xx action code that would indicate that the claim lines were not profiled.

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<sup>132</sup> Siskin Merits Report, pp. 21-22.

<sup>133</sup> Siskin Affirmative Class Cert Report, p. 16.

117. Dr. Siskin discusses a hypothetical example of applying one “common scrubber” rule that is allegedly used by Ingenix<sup>134</sup> and uses this example to support his conclusion that Ingenix’s “common scrubber” rule would eliminate valid high charges, “thereby skewing downward the Upper Percentile values in the final Ingenix data.”<sup>135</sup> In my responsive class certification report, I constructed a hypothetical example that results in the opposite outcome, showing that a single hypothetical example cannot demonstrate class-wide injury.<sup>136</sup>

118. Dr. Siskin asserts that “Ingenix’s scrubbing of some charges on the low end is not balanced by its scrubbing of charges on the high end. Even if Ingenix edits out more low than high charges, the scrubbing of high charges still skews the database downward.”<sup>137</sup> He uses two hypothetical examples,<sup>138</sup> the same ones he used in his affirmative class certification report<sup>139</sup> and in his 2006 Health Net Report,<sup>140</sup> to support this conclusion. However, two hypothetical examples cannot be generalized to all claim lines in the purported class. The two counterexamples in section VI.B of my affirmative class certification report show that when an equal number of charges are “scrubbed” from each end, the resulting upper percentile values could stay the same; even if more charges are “scrubbed” from the high

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<sup>134</sup> Siskin Merits Report, pp. 28-29. The exact same example was discussed in Siskin Affirmative Class Cert Report pp. 22-23.

<sup>135</sup> Siskin Merits Report, p.29, and Siskin Affirmative Class Cert Report, p. 24.

<sup>136</sup> Joskow Responsive Class Cert Report, Appendix C, pp. 5-7.

<sup>137</sup> Siskin Merits Report, p. 33.

<sup>138</sup> Siskin Merits Report, pp. 33-34.

<sup>139</sup> Siskin Affirmative Class Cert Report, pp. 27-28.

<sup>140</sup> Supplemental Expert Report of Bernard, R. Siskin, Ph.D., *Wachtel, et al. v. Guardian Life Ins. Co, et al.*, Civ Docket No. 01-4183 and *McCoy v. Health Net, et al.*, Civ Docket No. 03-1801, June 15, 2006, (“Siskin 2006 Health Net Report”), pp. 21-22.

end than from the lower end, the resulting upper percentile values could still stay the same.<sup>141</sup>

119. Dr. Siskin contends that Ingenix fails to perform “proper standardization” when creating derived data, thus biasing downward the upper percentile values.<sup>142</sup> To support this claim, he discusses two hypothetical examples,<sup>143</sup> the same as those used in his affirmative class certification report<sup>144</sup> and his 2006 Health Net Report.<sup>145</sup> However, the counterexample in section VI.C of my affirmative class certification report demonstrates that when only considering relative values it is possible for the 80<sup>th</sup> percentile value to increase when derived charges are used.

120. Dr. Siskin contends that it is inappropriate for Aetna to use data sources, such as the Aetna Market Fee Schedule data or Medicare data, to determine the UCR rate.<sup>146</sup> However, Dr. Siskin does not provide any evidence to show that the UCR rates were systematically understated from Aetna’s use of its own data or Medicare data.<sup>147</sup>

121. Dr. Siskin states that it is inappropriate for Aetna to use the “tiering” policy to determine the UCR rates for behavioral health care claims.<sup>148</sup> However, Dr. Siskin does not provide any evidence to show that the UCR rates were systematically understated for all behavioral health care claims from Aetna’s use of the “tiering” policy.

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<sup>141</sup> Joskow Affirmative Class Cert Report, ¶¶125-128. Moreover, in some cases where more charges are “scrubbed” from the low than the high end, the resulting upper percentile value can even rise, as shown in Example 3 in Appendix C of Joskow Responsive Class Cert Report.

<sup>142</sup> Siskin Merits Report, pp. 37-38.

<sup>143</sup> Siskin Merits Report, pp. 38-41.

<sup>144</sup> Siskin Affirmative Class Cert Report, pp. 32-33.

<sup>145</sup> Siskin 2006 Health Net Report, pp. 26-28.

<sup>146</sup> Siskin Merits Report, pp. 41-43.

<sup>147</sup> This was also addressed in Joskow Responsive Class Cert Report, ¶30.

<sup>148</sup> Siskin Merits Report, pp. 43-46.

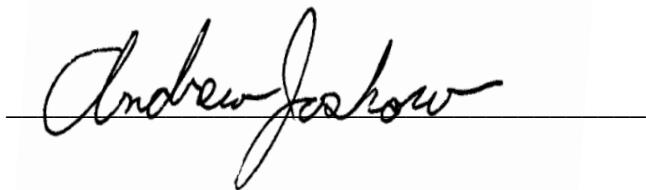
122. In his merits report Dr. Siskin raises an issue not mentioned in his class certification reports.

He asserts that the UCR rate should be based on the distribution of doctor's charges and not on the distribution of billed charges. He addresses this issue with a hypothetical example,<sup>149</sup> and raises the issue in the context of the Jill Faddis example.<sup>150</sup> However, a simple counterexample shows that considering the distribution of doctor's charges can actually lower the UCR rate: assume there are five providers in a particular geographic area, charging \$60, \$70, \$80, \$90, and \$100, respectively, for a particular procedure. Assume also that there are 5 charges from the \$60 provider, 30 charges from the \$70 provider, 25 charges from the \$80 provider, 15 charges from the \$90 provider, and 25 charges from the \$100 provider. The 80<sup>th</sup> percentile value based on the distribution of doctor's charges would be \$90, which is lower than the 80<sup>th</sup> percentile value, \$100, based on the distribution of billed charges.

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<sup>149</sup> Siskin Merits Report, pp. 13-14.

<sup>150</sup> Siskin Merits Report, p. 29.



A handwritten signature in black ink, appearing to read "Andrew Joskow", is written over a horizontal line.

Andrew Joskow

Signed on November 10, 2010